Class Size and Teacher Factors as Determinants of Academic Achievement of Students in Economics in Public Secondary Schools in Southwest, Nigeria

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Certification

This is to certify that **Akinola Olusegun ADESOPE** with the matriculation number **LCU/PG/001296** carried out this research work titled: '**Class Size and Teacher Factors as Determinants of Academic Achievement of Students in Economics in Public Secondary Schools in Southwest, Nigeria** in the Department of Arts and Social Sciences Education, Faculty of Education, Lead City University, Ibadan, Nigeria for the award of Doctor of Philosophy Degree (PhD) in Educational Management and that this has not been previously submitted.

Professor Senimetu Ileuma — **Date**
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Dedication

This work is dedicated to Almighty God for His wisdom, knowledge and strength in my life. Also, to my parents Late Mr. Emmanuel Olusiji and Mrs. Christianh Abike Adesope.

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Abstract

It has been observed that students' academic achievement in Economics has not been encouraging. The statistics from West African Examination Council (WAEC) examination results from 2014 to 2021 indicated low percentage performance of students in Economics in Southwest, Nigeria. This may be attributed to various factors. This study investigated Class Size and Teacher Factors as Determinants of Academic Achievement of Students in Economics in Public Secondary Schools in Southwest, Nigeria. Three research questions and two hypotheses guided the study. Study population consisted of Economics teachers (6,855) and SSS2 students (289,132) in public secondary schools in Southwest. 840 teachers and 3500 students used as sample size. Descriptive survey research design was used. A questionnaires tagged – Class Size and Teachers Factor Questionnaire, CSTFQ (α = .808) and an "Economics Achievement Test, EAT (KR_{21} = .765) were used to collect data. Data were analysed using percentage and multiple regrssion. Results revealed poor level of students' academic achievement in Economics ($\bar{x}$ = 1.202), high class size level ($\bar{x}$ = 3.428), poor level of teacher factors such as attitude ($\bar{x}$= 1.900), mastery of subject matter ($\bar{x}$= 1.953), experience ($\bar{x}$= 2.181) and educational qualification ($\bar{x}$= 2.353) but good level of teaching styles ($\bar{x}$= 3.169). Hypotheses revealed significant joint contribution of class size and teacher factors on students' academic achievement in Economics ($F_{6, 833}$ = 9.961, P<0.05). It also revealed that class size (Beta = -.084; t = -2.475), teachers' attitude (Beta = .179; t = 4.960), mastery of subject matter (Beta = .157; t = 2.423) and teaching styles (Beta = .216; t = 5.383) are relatively significant at P<0.05 while teachers' experience (Beta = -.066; t = -.723) and educational qualifications (Beta = .102; t = 1.235) are not relatively significant at P>0.05. It was concluded that class size and teacher factors influence students' academic achievement in Economics in Public Secondary Schools in Southwest, Nigeria. It was recommended amongst others that teachers should be trained continuously and the recommended class size should be strictly adhered to.

Keywords: Class Size. Teacher Factors, Students' Academic Achievement, Economics
Word Count: 295

Table of Contents

List of Tables

List of Figure

List of Appendices

Chapter One

Introduction

1.1 Background to the Study

Academic achievement of secondary school students is very important for the realization of the goals and objectives of education. Given the current state of underdevelopment, unemployment, economic deterioration and consumption based economy of Nigeria today, there is the need for academic achievement of students especially in subjects like Economics, to be examined.

Economics is a social science subject that is studied at the Senior Secondary School (SSS) level. It is concerned with the production, distribution, and consumption of goods and services. It studies how, business, government, and nations like Nigeria make choices about how to locate resources. The guiding principle of Economics subject is the need to equip students with the basic knowledge and skills that will enable them to better appreciate the nature of Economic problems in any society such as Nigeria[1]. Academic achievement of senior secondary school students in Economics therefore becomes imperative.

Academic achievement of students in Economics represents the understanding of public secondary school student about different concepts and skills developed in Economics[2]. It is how well a public secondary school student is able to assimilate, retain, recall, master, and communicate his or her knowledge of what he or she has learnt in Economics[3]. In the context of this study, academic achievement of public secondary school students in Economics is viewed as their grades or scores in Economics which determines their academic status and is as a result of their mental ability, prowess and capacity in Economics subject in public secondary school setting[4].

It has however been observed that students' academic achievement in Economics subject in Southwest, Nigeria has not been encouraging because the available statistics from West Africa Examinations Council (WAEC) examination results from 2014 to 2021 shows low percentage performance of students in Economics in Southwest, Nigeria. In Economics, 75 percent of the students scored grades between D7 to F9 within the period under review[5].

The reasons for this poor academic achievement of students in Economics could be due to class size and teacher factors. Most public secondary schools seem to have too many students to teacher ratio. The classes are usually small to contain the large population of students in the public secondary schools. The teachers too seem not to be qualified nor experienced enough to handle the subject. Some of them seem not to have completely mastered the subject and their attitude towards the subject seem to be negative. Therefore, there is the need to examine the extent to which class size and teacher factors may be influencing students' academic achievement in Economics even as a thorough search of literature shows scarcity of studies on the joint contribution of both factors on students' academic achievement.

Class size is an educational tool that can be described as the number of public secondary school students per Economics teacher in a given class or the population of a class[6]. It is the number of students an Economics teacher teaches during a given period of instruction in public senior secondary schools, Southwest, Nigeria[7]. It could be large, average or small. Several similar studies have been carried out on class size and academic achievement of students. For instance, studies noted that classroom size has negative impact on academic performance of secondary school students in English language in Ekiti and Borno states, Nigeria[8,9,10]. The findings of a study revealed that students in small

class size performed better than those in large class in Basic Science and Technology in Gwagwalada Area Council FCT Abuja, Nigeria[11].

A study also revealed that, high numbers of the students in classroom affect academic performance and that smaller class size leads to improvement in students' academic performance in Potiskum Local Government Area, Yobe state[12]. Studies revealed significant effect of class size on academic performance of students in Kaduna, Rivers and Anambra States, Nigeria[13,14,15]. Also, studies revealed no significant relationship between class size and academic performance of students, in Lagos, Ekiti and Bauchi States[3,16,17]. However, studies are limited on the influence of class size on students' academic achievement in Economics in public senior secondary schools, Southwest Nigeria.

Teacher factors are those attributes, characteristics and behaviours exhibited by public senior secondary school Economics teachers in the classroom and during teaching and learning process[18]. They are those qualities of a public secondary school Economics teacher that can be measured with tests or derived from their academic or professional records[19]. These teacher factors could be 'personal' such as age, gender, mental ability or 'experiential' such as qualification, teaching experience, attitude, subject mastery, teaching styles, questioning behaviour, teaching strategies et cetera[20]. This study however focuses on teacher factors such as - teachers' attitude, mastery of subject matter, teaching experience, educational qualification and teaching styles.

Teachers' mastery of subject matter is defined as the ample, up-to-date knowledge of Economics teachers in Economics subject in public secondary schools in Southwest, Nigeria[21]. A study revealed that teachers' subject content knowledge and pedagogical skills influence students' academic performance in public senior secondary schools in Ikot Ekpene and Essien Udim Local Government Areas of Akwa Ibom State[21]. Studies

reveal that teachers' mastery of subject matter significantly affects the academic performance of secondary school students in Jalingo and Kaduna States, Nigeria[22&23].

Research works showed positive influence of students' perception of teachers' subject mastery on students' academic performance in Chemistry and Physics subjects in Calabar Municipality, Cross River State, Nigeria[24,25]. A study showed that teachers' in-depth understanding of subject matter can change students' negative attitude towards physics to positive in Secondary Schools in South West Region of Cameroon[26]. However, studies are limited on the influence of teachers' mastery of subject matter on students' academic achievement in Economics in public senior secondary schools, Southwest Nigeria.

Attitude is a construct that indicates an Economics teacher like and dislike towards teaching in public secondary schools. It may be positive, negative or neutral[27]. It is therefore regarded as a consistent tendency of an Economics teacher to react in a particular way often positively or negatively towards the teaching of Economics in public secondary schools in Southwest, Nigeria[28]. Teachers' attitude is a mindset that affects how an Economics teacher feels (affection), thinks (cognition) and acts (behavioural) in relation to teaching Economics in public secondary schools in Southwest, Nigeria. It can affect how well an Economics teacher plans and prepares for his/her lessons[29]. The attitude of a teacher can therefore affect students' academic achievement in Economics in public secondary schools in Southwest, Nigeria.

Several similar studies have been carried out on teachers' attitude and students' academic achievement. For instance, studies indicate that there is a significant positive relationship between teachers' attitude and students' achievement in Basic science and technology, English language, Chemistry and Economics in Ibadan Metropolis, Ekiti and Bauchi states respectively[1,28,30,31]. Studies also showed that teachers' attitude significantly

predicted students' academic performance in Financial Accounting and Agricultural Science in senior secondary schools in Adamawa and Abia States, Nigeria[32,33]. However, studies are limited on the influence of teachers' attitude on students' academic achievement in Economics in public senior secondary schools, Southwest Nigeria.

Teachers' teaching experience has to do with the increased awareness of diversifying search for new ideas, new commitments and new challenges in Economics Subject[18]. Teaching experience is the number of years that an Economics teacher has worked or served in the teaching profession or career in a classroom setting in public secondary schools, Southwest, Nigeria[34,35]. It can influence students' academic achievement in Economics positively or negatively. Studies revealed a significant relationship between teachers' teaching experience and academic performance of students in Biology in Ekiti State[36,37].

Studies also showed that teacher's teaching experience significantly affect the academic performance of secondary school students in Science subjects in Benue and Ondo States, Nigeria[38,39]. A study concluded that the level of secondary school students' performance in music in South-South Nigeria is significantly affected by teachers' level of years of experience[40]. However, studies are limited on the influence of teachers' teaching experience on students' academic achievement in Economics in public senior secondary schools, Southwest Nigeria.

Teachers' educational qualification entails the basic training acquired by an Economics teacher to enable him/her to practice in the teaching profession in public secondary schools[41]. In the context of this study, teacher educational qualification is defined as that special skill, knowledge, beliefs and values that makes an Economics teacher suitable to teach Economics in public senior secondary schools in Southwest, Nigeria[42,43]. Teachers' educational qualification could therefore influence students'

academic achievement in Economics positively or negatively. Studies show significant relationship between teachers' qualification and students' academic performance in Biology and Economics in Kaduna, Oyo, Ogun, Bauchi, Borno and Ekiti States[18,44,45,46,47,48]. However, a study revealed no significant relationship between Chemistry teachers' qualification and students' academic achievement in Etche local government area[49]. However, studies are limited on the influence of teachers' educational qualification on students' academic achievement in Economics in public senior secondary schools, Southwest Nigeria.

Teaching styles are methods, procedures and strategies used by an Economics teacher in instruction and interpersonal relations in public secondary schools, Southwest, Nigeria that have developed and matured through years of personal and professional experience. It is a combination of manners, tactics and behaviours inherent in the personality of an Economics teacher that immensely influence the teaching learning process in Public secondary schools in Southwest Nigeria[50]. Teaching styles could therefore influence students' academic achievement in Economics positively or negatively.

Studies showed a significant positive correlation between teachers' style of teaching and academic achievement of students in chemistry and Biology in Ekiti and Taraba states[31,51]. A study reported that teaching styles influences the level of mastery of concepts and skills in students in Mbarara Municipality[52]. However, studies are limited on the influence of teachers' teaching styles on students' academic achievement in Economics in public senior secondary schools, Southwest Nigeria.

Students' academic achievement is needed for effective and productive manpower in the industrial and economic sectors of the country. However, when these students do not achieve well academically in Economics, they would not be able to contribute their

quota effectively towards the economic development of the society. There is therefore the need to thoroughly examine factors such as class size and teacher factors that might be responsible for poor academic achievement of students in the subject in Southwest, Nigeria. Moreover, there is scarcity of studies on the joint contribution of class size and teacher factors on students' academic achievement in Economics hence the rationale for this study.

1.2 Statement of the Problem

It has been observed that students' academic achievement in Economics subject has not been encouraging because the available statistics from West Africa Examinations Council (WAEC) examination results from 2014 to 2021 which indicated low percentage performance of students in Economics in Southwest, Nigeria. In Economics, about 75 percent of the students scored grades between D7 to F9 within the period under review[5]. The consequences of poor performances in a subject like Economics far-reaching. These could range from possible academic failure or poor performance in related subjects, poor school engagement, wastage of resources from parents or government, school dropout, feelings of inadequacy, poor academic self-concept, academic anxiety, parental loss of confidence and poor identity. The reasons for this poor academic achievement of students in Economics could be due to class size, teacher factors, learning environment, learners' attitude and so on. Most public secondary schools seem to have too many students to teacher ratio. Most classes cannot contain the number of students. The teachers too may be ill equipped. Some of them seem not to have completely mastered the subject and their attitude towards the subject seem to be negative. There is therefore the need to examine the extent to which class size and teacher factors may be influencing students' academic achievement in Economics even as a thorough search of literature shows a dearth of studies on the joint contribution of both factors on students' academic achievement.

1.3 Aim and Objectives of the Study

The aim of this study was to investigate class size and teacher factors as determinants of academic achievement of students in Economics in public secondary schools in southwest, Nigeria. The objectives of the study were to:

i. identify the level of students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria;

ii. identify the class size level for the teaching of Economics in public senior secondary schools in Southwest, Nigeria;

iii. determine the level of teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) for the teaching of Economics in public senior secondary schools in Southwest, Nigeria;

iv. examine the joint contribution of class size and teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) on students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria; and

v. examine the relative influence of class size and teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) on students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria.

1.4 Research Questions

1. What is the level of students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria?

2. What is the class size level for the teaching of Economics in public senior secondary schools in Southwest, Nigeria?
3. What is the level of teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) for the teaching of Economics in public senior secondary schools in Southwest, Nigeria?

1.5 Hypotheses

$H_0$1: There will be no significant joint contribution of class size and teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) on students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria; and

$H_0$2: There will be no significant relative influence of class size and teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) on students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria.

1.6 Significance of the Study

This study is very significant in the sense that it would provide useful knowledge on the current state of class size and teacher factors that may be influencing students' academic achievement in Economics in public secondary schools in Southwest, Nigeria. It would therefore be a useful reference point for teachers, principals, parents, educational stakeholders, policy makers and researchers.

The teachers can use the information provided from this study in ensuring that they are properly educated, go for various in-service trainings, further their education, and develop positive attitudes and styles towards teaching of Economics subject. They would also ensure that they coordinate their class room environment effectively regardless of the size of the classroom.

The principals could use the knowledge gained from this study to ensure that they thoroughly supervise their teachers during classroom teaching and learning activities so as to make sure their teachers teach well regardless of the class size. They would also contribute their quota in ensuring that only teachers who are qualified, experienced and have the right attitude towards teaching are employed by the ministry of education.

Educational stakeholders should also use the knowledge gotten from this study in ensuring that qualified and experienced teachers who have positive attitude towards teaching Economics are recruited. They would also use this information to make sure that the proper class size as stipulated in the National policy of education is strictly adhered to regardless of the population of students. If need be, they would ensure that school infrastructures are provided or improved upon to adequately accommodate the huge influx of students into the public secondary schools in Southwest, Nigeria.

Policy makers would use the knowledge gained from this study in ensuring that they make educational policies that are favourable to the students' academic achievement. They should make sure that the normal class size is ensured and maintained across all public secondary schools in Southwest, Nigeria. They can also enforce policies that ensure that only qualified and experienced teachers are employed to teach in public secondary schools.

Lastly, researchers could use the information provided by this study as a reference point in embarking on further studies in a similar line of endeavour. The information provided by this study would also add to current literatures on the subject upon publication.

1.7 Scope of the Study

The scope of this study focused on class size and teacher factors as determinants of academic achievement of students in Economics in public secondary schools in

southwest, Nigeria. The variable scope entails two independent and one dependent variables. The independent variables are class size and teacher factors. Class size which could small, medium or large was studied as a single variable. However, teacher factors was studied using the following five (5) indices which are - attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles. Students' academic achievement in Economics was also be treated as a single variable. The population and geographical scope consisted of Economics teachers and students in public senior secondary schools in Southwest, Nigeria. Instruments for the study was limited to a questionnaire while data analysis was done using descriptive and inferential statistical methods.

1.8 Limitations of the Study

Although there were no much restrictions based on the COVID-19 pandemic, some public secondary schools in some states in the Southwest Nigeria were still adamant to granting permission for the fieldwork to take place. Also, most of the teachers were too busy to fill up the questionnaires. They took so much time in attending to the questionnaires which caused a delay in retrieving the instruments. Few of the teachers' questionnaires were lost as a result of the delay in responding to them by the teachers.

1.9 Operational Definition of Terms

Academic Achievement: This has to do with students' previous term scores or grades in Economics.

Class Size: This has to do with the number of students per Economics teacher in a given class or the population of a class in a public secondary school in Southwest, Nigeria.

Teacher Factors: These have to do with those attributes, characteristics and behaviours exhibited by public secondary school teachers in the classroom and during teaching and

learning process. They include - teachers' attitude, mastery of subject matter, teaching experience, educational qualification and teaching styles.

Teachers' Mastery of Subject Matter: This has to do with the ample, up-to-date knowledge of Economics teachers in Economics subject.

Teachers' Attitude: This refers to a construct that indicates an Economics teacher like and dislike towards teaching in public secondary schools. It may be positive, negative or neutral.

Teachers' Teaching Experience: This has to do with the number of years that an Economics teacher has worked or served in the teaching profession or career in a classroom setting.

Teachers' Qualification: This has to do with that special skill, knowledge, beliefs and values that makes an Economics teacher suitable to teach Economics in public senior secondary schools in Southwest, Nigeria.

Teaching Styles: This refers to methods, procedures and strategies used by an Economics teacher in instruction and interpersonal relations that have developed and matured through years of personal and professional experience.

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Chapter Two

Literature Review

This chapter presents previous research works that are related to the variables, concepts and constructs in this study. It is reviewed based the title of the research work, objectives, research questions and hypotheses under study. The chapter is thus organized based on the following headings and sub-headings:

2.1 Conceptual Review

2.1.1 Concept of Academic Achievement

Academic Achievement is the knowledge and skills that public secondary school students have mastered in a subject or a course. It is basically a measure of how well public secondary school students have performed in the various assessment items set for them based on some educational criteria determined by professional educators[1]. Public secondary school students' academic achievement is a 'net result' of their cognitive and non-cognitive attributes as well as the socio-cultural context in which the learning process takes place[2]. It is the ability of public secondary school students to demonstrate that which has been learnt in the classroom through writing or by oral communication. It is the outcome of education and the degree to which the public secondary school student, teacher or a public secondary school has achieved their educational objective[3].

Completion of educational benchmarks such as secondary school diplomas and leaving school certificate examinations such as WAEC, NECO and GCE represent academic achievement. Academic achievement which is usually measured with test refers to what is actually done under existing circumstances that subsumes the process of accessing and utilizing the structure of knowledge and abilities and a host of affective, motivational and stylistic factors that influence the ultimate responses[4,5].

Academic achievement refers to the mental ability of public secondary school students to meditate, retain knowledge, understand and recall the facts, and being versed to impart the knowledge and facts by means of language or writing down on paper. It is how justly a public secondary school student is achieving his or her tasks and studies. Academic achievement is also defined as a quality of accomplishment in terms of tasks and lesson with academic content. It is the attainment of public secondary school students from lessons taught which may include experiences, knowledge, skills and the like[6].

Academic achievement is the extent to which academic goals of public secondary school student, teacher or institution are being actualized[7]. Internal and national examinations are usually used to measure the extent of academic achievement. Academic achievement denotes performance outcome that indicate the degree to which a student has proficient specific goals that were the focus of activities in instructional environment, especially in schools, colleges, and university. Also, academic achievement is the sum total of a public secondary school student's performance after the content of a curriculum has been taught or delivered by the teacher[8].

Academic achievement is therefore the quality and quantity of knowledge, skills, grades, techniques, positive attitude, behaviour and philosophy that learners achieve or acquire and evaluated through marks and grades that the public secondary school students attain in a test or examination which is done at the end of a topic, school term, year or education cycle[9]. Grades are the most common indicator of public secondary school students' academic performance; grades are most often a tally or average of assignment and test score[6,9].

2.1.2 Economics as a Subject

Economics is one of the subjects that is studied at the Senior Secondary School (SSS) level. It is a social science subject derived from ancient Greek word "OIKNOMIA" which means management of house hold. It is a subject that analyzes the production, distribution, and consumption of goods and services. The earlier name was political economy but later in 19th century, economist suggested economics as a shorter term. The subject deals with how, business, government, and nations make choices about how to locate resources. The guiding principle of the subject is to equip students with the basic knowledge and skills that will enable them to better appreciate the nature of economic problems in any society like Nigeria[10].

The knowledge of Economics is considered to be a prerequisite for one to adequately prepare for life in modern society. It gives students facts and shows them what may be expected to be the outcome of certain lines of conduct; it charges them to make wise choice that will satisfy their needs in the presence of unlimited wants. For any society to be equipped with the basic knowledge and skills that will enable it to better appreciate the nature of economic problems, and how to make rational economic decisions, such a society must depend on the accumulated knowledge of economics, which the citizens possess. Economics is thus the foundational subject for all management and commercial courses. It forms the background upon which other management, commercial and social sciences disciplines are built on. This is a reason why admission into any commercial or management course in the university requires a minimum of credit pass in Economics for any candidate[10,11].

2.1.3 Academic Achievement in Economics

Academic achievement in Economics is a yard stick for ascertaining the capabilities of a public secondary school student from which his overt, covert and inherent or unrevealed abilities could be inferred. It is generally used to determine how well a public secondary school student is able to assimilate, retain, recall and communicate his knowledge of what has been learnt in Economics. It refers to the observed and measured aspect of a public secondary school student's mastery of skills and Economics subject contents as measured with valid and reliable test. Academic achievement in Economics is the ability of public senior secondary school students to express what has been learnt in Economics in a written or practical form without examination malpractice of any sort. It is the demonstrated performance in learning as opposed to the potential for learning and is measured validly with SSCE (WAEC and NECO) in a Nigeria setting[4,5].

Academic achievement in Economics represents performance outcomes that indicate the extent to which a public senior secondary school student has accomplished specific goals that were the focus of activities in the public secondary school[7]. Academic achievement in Economics which is measured by test or examination results, is students' performance in the subject. It is a measure of how well public secondary school students have fared in Economics subject in a public secondary school with which public secondary school students can be awarded grades[12]. Academic achievement in Economics represents the understanding of the public secondary school student about different concepts and skills developed in Economics subject. It can be defined as learned proficiency in basic skills and content knowledge[13].

It was also averred that academic achievement in Economics is symbolized by a score or marks on the achievement test in Economics. It is therefore viewed as public secondary school students' performance, grades and status in Economics which is as a result of their mental ability, prowess and capacity in the subject in a school setting[14]. Public secondary school students' academic achievement in Economics refers to the knowledge and skills that public secondary school students have mastered in Economics[15].

Academic achievement in Economics is also the ability of public secondary school students to widely and intelligently apply what they have studied in Economics. Thus, it is their learning outcomes in Economics subject. The learning outcomes of public secondary school students include the knowledge, skills and ideas acquired and obtained in Economics within and outside the classroom situation. Academic achievement in Economics is thus the outcome of determination and hard work of public secondary school students in their academic pursuit. It is the performance of the students in Economics which determines their status in the class and gives them the opportunity to develop their talents, improve their grades and prepare for future academic challenges.

Academic achievement in Economics encompasses public secondary school students' ability and performance; it is multidimensional; it is intricately related to human growth and cognitive, emotional and social physical development; it reflects the whole child; it is not related to a single instance, but occurs across time and levels, through a public secondary school student's life in public school and into postsecondary years and working life[16].

Achievement of public secondary school student in Economics should not only be considered from the academic outcomes, but also from other educational outcomes such as their affective and psychomotor domains[17,18]. Academic achievement in Economics is regarded as an observable or measurable behaviour or action of a public secondary school student in Economics achievement test[19].

Achievement tests assess the proficiency of public secondary school students in Economics. Proficiency is the amount of grade-appropriate knowledge and skills a public secondary school student has acquired up to the point of testing. The most common types of achievement tests are the standardized test and the classroom (or teacher-made) test developed to measure skills and knowledge learned at the senior secondary school level in Economics, usually through planned instruction, such as training or classroom instruction. Achievement test scores are often used in an educational system to determine the level of instruction for which a public secondary school student is prepared. High achievement scores usually indicate a mastery of grade-level material, and the readiness for advanced instruction. Low achievement scores can indicate the need for remediation or repeating a course[20].

Academic achievement in Economics is defined as the attainment of knowledge, competencies, and higher-level status, as reflected in grades, degrees, and other forms of certification or public acknowledgment. In the context of this study, academic

achievement in Economics is the average overall score attained by the public secondary school students at the end of the previous term in Economics subject taught by the Economics teachers participating in the study[21].

2.1.4 Concept of Class Size

Class size is an educational tool that refers to the average number of students per class in a school. It is the number of students per teacher in a class[22]. Class size may be defined as the number of students per teacher in a given class or the population of a class[23]. Class size is equal to regular enrollment divided by the number of classes[24]. Class size refers to the number of students in a given course, specifically either the number of students being taught by an individual teacher in a course or classroom or the average number of students being taught by teachers in a school or educational system[25].

Class size could also refer to student to tutor ratio. Class size refers to the actual number of pupils taught by a teacher at a particular time. Thus, the student-teacher ratio is always lower than the average class size, and the discrepancy between the two can vary, depending on teachers' roles and the amount of time teachers spend in the classroom during the school day. The class size could be large or small. Class can be said to be large when the student number is more than 25. It was argued that even though numbers may be necessary for defining large classes, number alone is not sufficient to arrive at a shared definition, even within one country. This suggests that large class size is defined not only by number of students but by additional factors. For instance, a large class in Western context may be considered small by both teachers and learners in most teaching-learning contexts in Africa. The British council further reveals that large class can be from 22 in US elementary schools to 150 in an African classroom. It was reported that in the Western countries that class size of 30 is considered large which needs to be reduced. These include physical conditions in the classroom such as the amount of space available,

and the availability of resources. It was stated that a class is considered as large one depending on how the teacher perceives the class size in the specific situation, regardless of the exact number of the students in it. Therefore, large class is one with more students than the teacher prefers to manage and available resources can support[26].

Whether a class is perceived as large or small depends on factors such as teacher factors, school environment, educational theories and philosophies. Several factors such as inadequate school building, population explosion, inadequate number of subject teachers, give rise to larger class sizes. In a normal classroom, the teacher is expected to cater for or deal with diverse personalities with divergent backgrounds, ideas, interests, attitudes and abilities[27].

Class size is akin to the administrative element of 'span of control', which is the number of subordinates a classroom manager can effectively supervise. It is an administrative measure signifying the number of students for whom a teacher is responsible during the school year. The teacher who is the classroom manager should therefore, have the number of students he/she can effectively control, supervise and teach at any given period. It is often perceived that smaller classes have less number of disruptions thereby resulting to better student/teacher engagement and better student learning than larger classes. Adding more students to a class increases the number of disruptions and decreases the amount of time during which learning can take place because the teacher spends time dealing with these students that cause disruptions[5&27].

2.1.5 Concept of Teacher Factors

Teacher factors are those attributes, characteristics and behaviours exhibited by public secondary school teachers in the classroom and during teaching and learning process[28]. They are those qualities of an Economics teacher that can be measured with tests or derived from their academic or professional records[29]. These factors could be

'personal' such as age, gender, mental ability or 'experiential' such as qualification, teaching experience, attitude, subject mastery, teaching styles/methods, questioning behaviour, teaching strategies et cetera[30]. This study however focuses on as teacher factors such as - teachers' attitude, mastery of subject matter, teaching experience, educational qualification and teaching styles.

2.1.5.1 Teachers' Mastery of Subject Matter

Teachers' mastery of subject matter is defined as the ample, up-to-date knowledge of an Economics teachers in Economics subject. It is noteworthy that an Economics teacher should be knowledgeable in his or her subject area, and be acquainted with the beliefs and principles underlying the subject matter. Understanding of subject matter of a discipline enables Economics teachers to plan their lesson and also to evaluate their assignment. The benefits of knowledge of subject matter include enabling the Economics teachers to teach well using different teaching methodologies, give varied and alternative questions and ability to clarify misconceptions on subject content. This helps the Economics teacher a great deal especially in the evaluation of the learners[9&31].

Mastery of the subject matter by the Economics teachers helps them to impart knowledge effectively and confidently. It is through the mastery of subject matter that the Economics teachers are able to impart right skills of communication, collaboration, critical thinking and creativity based on the three learning domains which are - cognitive, affective and psychomotor[32].

2.1.5.2 Teachers' Attitude

Attitude is a developmental state of an Economics teacher created by psycho-biological processes, exerting a motivational influence upon the individual's responsive behaviour in situations directly and indirectly related to it. It is viewed as internal beliefs that influences personal actions which is learned through experience[10]. Attitude is an

economics teacher's feelings, thought and predisposition to behave in some particular manner towards some aspects of environment[33]. It could be defined as a consistent tendency to react in a particular way-often positively or negatively–toward any matter[34].

The teachers' attitude is an imaginary construct that indicates their like and dislike towards teaching economics subject. It is an approach, temperament, sensation, situation, among others with regard to a person or thing: leaning or course, particularly of the mind[35]. Attitude is a readiness of Economics teachers to respond in such a way that behaviour is given a certain direction[36]. Attitudes refer to the ability to predict an Economics teacher's behaviour toward certain targets. It is regarded as a predisposition to respond favourably or unfavourably to a person, object or an event[37].

Attitude is a mental or neural state of readiness, organized through experience, exerting a directive or dynamic influence upon individual's response to all objects and situations with which it is related[38]. Attitudes may be defined as acquired and psychological variables, mental state achieved through life experience that direct Economics teachers' behaviour[39,40]. Economics teachers' attitude is a series of beliefs that predispose them to behave in a particular way towards the teaching of Economics[41].

Teachers' attitude is a mindset that affects how an Economics teacher feels (affection), thinks (cognition) and acts (behavioural) in relation to teaching Economics. Attitude can affect how well an Economics teacher plans and prepares for his/her lessons. The attitude of a teacher whether positive or negative, consciously or unconsciously, greatly affects students' academic achievement in Economics[42]. Attitude may be positive, negative or neutral. Attitude is an approach, temperament, sensation, situation, etc. with regard to a person or thing: inclination or course, especially of the mind. Attitude is a way of looking at things.

There are three components of attitude stated as follows:

1. **Affective Component** is a feeling or emotion that an economics teacher has about the object or situation such as teaching Economics subject;
2. **Cognitive Components** are beliefs or ideas that economics teachers have about objects or situations; and
3. **Behavioural Components** which show how an economics teacher intends or wishes to teach Economics subject[43].

Attitude reflects the experiences of teachers in the past and in the present and are expressed through behaviour. Teachers' attitude is a consistent predisposition towards their teaching environment. It is suggested that teacher's attitude influences their actions. It is a predisposition to organize object, events and react to them with some reliability. It involves intellectual preparation relating to postures, actions, and determines what people think, do, hear and see. Attitude towards profession determines teachers' willingness to develop as a professional. Teachers with a positive attitude towards teaching profession facilitate learning through their commitment and skill[44].

2.1.5.3 Teachers' Teaching Experience

This refers to the number of years of teaching an Economics teacher has spent in the classroom setting[12]. Economics teacher experience has to do with the increased awareness of diversifying search for new ideas, new commitments and new challenges in area of Economics. Experience gained over time, enhances the knowledge, skills, and productivity of Economics teachers. These qualities facilitate students' skills and abilities to apply economics and also enable thorough understanding of economics concepts. Experienced Economics teachers are great asset to novice Economics teachers who need advice, encouragement and continuous guidance[28]. Teaching experience is the number of years that an Economics teacher has worked or served or invested in the teaching career

which produces a positive or negative influence on the students' academic achievement in Economics subject[45,46].

Experienced Economics teachers perceive teaching as more satisfying and enjoyable. Compared to novice Economics teachers, experienced Economics teachers are more familiar with applying effective instruction, managing unruly students and using successful teaching strategies. They are also more prepared for the unpredictability of classroom environment, which could mean less stress[47]. Teaching experience of an Economics teacher can be measured based on the Economics teacher's ability around comprehension and transformation of knowledge, concept to be imparted to learners. It includes participation in professional development activities geared towards equipping the Economics teacher for better service delivery[48].

2.1.5.4 Teachers' Educational Qualification

Qualified Economics teacher refers to one who has achieved the minimum criteria for teaching a particular level of education that guides learners to get new knowledge and skills. Having degrees, certificated as well as diplomas are considered to be the basic requirements that lead to Economics teacher qualification and also having effective code of conduct so as to meet the universal schooling goals[15].

A qualified Economics teacher is a professionally prepared Economics teacher in content and methods of teaching of Economics subjects. It was added that a professional university degree Economics teacher is expected to have a B.sc. in education with Economics as the major subject of specialization, or B.sc. (Hons) Economics with a post-graduate Diploma in education (P.G.D.E.) and Nigerian certificate of education (N.C.E.) with Economics[33].

Teachers' Qualification (TQ) entails the basic training acquired by an Economics teacher which enables him/her to practice in the teaching profession. An Economics

teacher's qualification may also be seen as an Economics teacher's certification. Certification is a measure of Economics teacher qualifications that combines aspects of knowledge on the subject matter about teaching and learning. Economics teachers' certification is defined as the traditional primary gatekeeper machinery for the teaching profession. It was added that the precise requirements for certification vary from one country to another; however, it should include the completion of an accredited and approved Economics teacher education programme, practice teaching, and a formal recommendation from an institution of higher education. Economics teachers' certification also refers to the academic preparation and competency testing required of public school Economics teachers[12,49].

Economics teacher qualifications includes such issues as what subject the Economics teacher majored in, whether the Economics teacher has an NCE, Bachelor's degree, and Master's degree, or whether the Economics teacher has passed the required licensure tests, and so forth. It is further defined as those qualities that Economics teachers have even before they are employed as Economics teachers and that are often assumed to contribute to the quality of their teaching. These qualities are called "Economics teachers' personal resources". They include - knowledge, skills and expertise, beliefs, values, credentials, personal traits, coursework, grades, subject-matter education, test scores, experience, certification, as well as evidence of participation in continued learning such as internships, induction, and professional development. These are resources that Economics teachers bring with them to the classroom and are considered important in establishing who should be allowed to teach[49].

Academically qualified Economics teachers refer to those who have academic training as a result of enrolment into educational institutions and obtained qualifications such as HND, B.Sc, B.A, and M.A. and so on; while professionally qualified Economics

teachers are those who got professional training that gave them professional knowledge, skills, techniques, aptitudes as different from the general education[50].

In the context of this study, teacher educational qualification is defined as a special skill or knowledge that makes an Economics teacher suitable to teach Economics in public senior secondary schools in Oyo state. These skills include - knowledge of subject matter, human growth and development, ethical values, instructional planning and strategies, assessment, learning environment, communication and advocacy, collaboration and partnership, continuous professional development, code of conduct and skillful use of information communication technologies[51,52].

2.1.5.5 Teachers' Teaching Styles

Style is defined as a way of doing something especially typical of a person, group of people, place or period. Teaching style is therefore defined as methods, procedures and strategies used by an Economics teacher in instruction and interpersonal relations that have developed and matured throughout the years of personal and professional experience. It is further viewed as a combination of manners, tactics and behaviours inherent in the personality of an Economics teacher that immensely influence the teaching learning process[21].

Teaching style is the way Economics teachers use when teaching the subject. It is a conceptual model of teaching and learning from the Economics teacher to direct students' thoughts and actions. The teaching style is closely related to a specific behaviour, so the Economics teacher's teaching style can be perceived by students[53]. Teaching style shows Economics teachers' own formal behaviour that are used consistently to covey, transmit knowledge and skills into students. It is further described as an Economics teachers' way of communication and collaboration with students during delivering of subject content in the classroom. Teaching style includes the implementation of

philosophy; it contains evidence of beliefs about values related to and attitudes toward all the elements of the teaching-learning exchange[54].

Teaching styles is the collection of various instructional approaches used by the Economics teacher with ease and comfort; and is highly related to the context of learning rather than the content. Teaching style is method specific to Economics teacher personal behaviour and the media that Economics teacher use to covey and get information. One's teaching style is the result of the way one learnt and not the way he/she was taught. It is based on the teaching philosophy and value system held by the Economics teacher regardless of the method and material. Teaching styles characterize a belief system along with the needs and behaviours that Economics teachers display in class-rooms[21].

There are various teaching styles employed by Economics teachers in schools which include Economics teacher centred teaching styles that involve lecture method, presentation and seminars. The other category is learner centred methods which involve question and answers, group discussion, brainstorming, demonstration[55]. An Economics teacher may either emphasize concrete, factual information or abstract, conceptual and theoretical information. An Economics teacher may either present information through pictures, diagrams, demonstration or it may be verbal through lectures, reading and discussion. An Economics teacher may either encourage students to actively participate in discussions and activities or remain passive simply watching and listening. Lastly, an Economics teacher may prefer a sequential mode of presenting the material in a systematic manner; or they could prefer to present a global picture first and then proceed to break it down[21].

2.2 Theoretical Review

This study is guided by the following theories:

2.2.1 Pritchard's Theory of Class Size

2.2.2 Education Function Theory

2.2.1 Pritchard's Theory of Class Size

Pritchard's theory of class size is based on the idea that class size whether small, average or large affects students' learning which ultimately affects their academic achievement. The theorist however focused specifically on the role of smaller class sizes on students' learning outcomes. According to the theorist, reducing the number of students in a classroom alters the entire classroom environment, creating a more positive learning environment. It was stated that the student-teacher dynamic, student-student dynamic, and teacher-parent dynamic are all improved in smaller classrooms. In addition, Economics teachers have more time, resources, and incentive to create improved lesson plans with greater levels of differentiation. Furthermore, it was stated that after students are being assigned into smaller classes, Economics teachers reported that students received more individualized attention. Economics teachers got to know individual students better and kept track of individual student progress. In turn, students became more engaged because of this increased, personalized learning environment. Additionally, Economics teachers spent less time on classroom management, which offered additional instructional time for all students in the classroom. Economics teachers spent less time grading, which allowed more time for lesson planning. In addition, Economics teachers had more opportunities for collaboration with other Economics teachers and had more room available to transition classes into a larger variety of teaching formats. Smaller classes resulted in a more positive environment due to students developing better relationships with each other. Higher achieving students encouraged and assisted their

peers, resulting in a higher performing classroom. The theorist also posited that another main reason for increased student achievement in smaller classrooms was that parents and Economics teachers developed stronger relationships. Having fewer students allowed Economics teachers more time to contact and develop positive relationships with parents[56].

Relevance of the Theory to the Study

The theory is relevant in that it shows the importance of class size in determining the academic achievement of students in Economics subject. The class size can determine how effective the teachers would be in disseminating knowledge to the students. A large class size could produce lots of disruptions that can affect the quality of a lesson. However, a smaller class size can reduce disruptions that can affect learning outcomes of the students.

2.2.2 Education Function Theory

The Education Production Function theory (EPF) is also called input-output theory. The theory is derived from the general production function that is used to explain the relationship between inputs and outputs of any organisation or firm. The production theory advances that an organisation such as the public secondary school is seen as one that uses various characteristics, features and type of inputs such as human resources (teachers) to produce educational outputs (academic achievement of students in Economics) through a process of teaching. The production function theory measures output (students' academic achievement) by achievement test scores in Economics Examination. The educational outcomes are a function of a variety of inputs that are injected into the education process, that is, education is a production process that uses various qualities and attributes of human resources into the production of educated learners[57]. According to the theory, inputs are teachers' characteristics, attributes or

variables such as qualifications, attitude, experience, mastery of subject matter amongst other inputs while output is the students' academic achievement. According to the theory, the following linear equation model was created:

$$Y = \beta 0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \varepsilon$$

Where, Y = Students' academic achievement in Economics; X_1 = Teachers' Mastery of Subject Matter; X_2 = Teachers' Attitude; X_3 = Teachers' Teaching Experience; X_4 = Teachers' Educational Qualifications; X_5 = Teachers' Teaching Styles; β0= Intercept explaining the level of achievement when no benchmarking technique is applied β1,….β3 = Co-efficient representing the contribution of the various types of teacher factors; ε =Error term.

Relevance of the Theory to the Study

The theory simply depicts the role of characteristics and attributes of teachers' inputs such as teachers' mastery of subject content, attitude, qualification and experience in determining outputs in terms of students' learning outcomes and achievement in Economics.

2.3 Review of Empirical Studies

2.3.1 Class Size and Students' Academic Achievement in Economics

A research work was investigated on the effect of class size on academic achievement of chemistry students in secondary schools in public in Ikere local government area of Ekiti State. The study was guided by four (4) objectives which were raised into three (3) research questions and formulated into four (4) hypotheses. The study adopted quasi – experimental research design. The sample size of eighty (80) respondents were used for the study using purposive sampling technique to select a school that practices co-education with at least hundred (100) Chemistry students in the Senior Secondary School two classes. The class was grouped into two. Group 1 named large

class consisted of fifty (50) students while the second group, Group 2 was named small class with thirty (30) Chemistry students. The instrument for data collection in the study was a student Chemistry Achievement Test (SCAT). The test-re-test method of reliability was used to ascertain the reliability index of the instrument using Pearson's Product Moment Correlation (PPMC). A coefficient of 0.985 was obtained. Frequency counts and percentage were used to analyse the demographic data of respondents while the hypotheses were tested using inferential statistics of t-test. Based on the findings of the study, the researcher concluded that Chemistry class size either small or large class size had no effects on students' academic achievement but students' achievement in either small or large class size could be affected by factors like teachers' effectiveness, teaching method, instructional materials available for use et cetera. Students' treatment in either large or small class size had no effects on Chemistry achievement scores of students taught in small class and those in large class in the post-test. Class size did not affect Chemistry achievement scores of male and female students taught in small class in the post-test. Gender Chemistry achievement is independent of large class in the post-test[5].

A study was carried out to examine the impact of classroom size on academic performance of secondary school students in Nigeria. The specific objectives studied include the following: to investigate the effect of class size on the educational performance of secondary school students; and to determine the extent to which the class size affects the manner in which teaching and learning is mediated in secondary schools. The survey research design was used in the study. The design of the study was carefully carried out to suit the purpose of the research project using primary source of data. The population of this study consisted of teachers in public secondary schools in Enugu North Local Government Area. The population included nine (9) secondary schools in Enugu north LGA, seven hundred and sixty one (761) teachers. Data treatment method was by

use of tables. Based on the findings of the study, it was concluded that large class size contributes to poor academic performance. It results to poor teaching methods as instructional materials are not used properly in a large class size because, it is very hard for the teacher to show the students the instructional material especially those at the back. It was recommended that policy makers should consider as a matter of priority the issue of increased funding of secondary school education in Nigeria. Increased funding will help to ameliorate problems facing academic performance in secondary schools, School supervisors and inspector should concentrate more on the number of students in each class and avoid overcrowding in classes[22].

A closely related research work was investigated on the impact of class size on student's academic performance in a course titled – "introduction to computer science" in Alvan Ikoku Federal College of Education Owerri, Imo State. The analysis was concentrated on the effect of Class size on student's performance; instructional strategies on student's academic performance, and Psychological effect of class size on student's performance. Hundred (100) level students of English and Economics department were used for the study. The researcher used Post NCE English and Economics as a sample. Hence one hundred and forty (140) questionnaires were distributed correctly filled and collected, ten (10) questionnaires were not collected or wrongly filled which were thereby rendered invalid by the respondent. The analysis was done using descriptive statistics such as percentages. It was found out that large class sizes had a negative effect on a student's academic performance in the course. It was also observed that class size has a psychological and social effect on a student's academic performance. Where the class size cannot be reduced in a given time due to challenges beyond the control of the school authorities, it is recommended that teachers and management of the school should employ rotational students' group formation and study. These groups could identify common

challenges and present them to teachers for support. As a long term measure, the Government should increase budget allocation to improve schools' infrastructural facilities[23].

A similar research work was done on the correlation between class size and mathematics learning by students. The work specifically studied the effects of class size on the teaching and learning of mathematics in junior secondary schools in Chikun Local Government Area (LGA) of Kaduna State, Nigeria. The sample was made up of hundred (100) students and twenty (20) mathematics teachers who were randomly selected from the population under study. Questionnaires were used as instrument for data collection. The questionnaire was subjected to face and content validity and also Cronbach's alpha for reliability estimation. The Cronbach's alpha value gave a result of .978 which meant that the questionnaire was reliable. The questionnaires were then administered to the sampled respondents in order to gather data for the study. The data gathered were analysed using descriptive and inferential statistics such as mean, standard deviation, percentages, frequency and Pearson product moment correlation analysis. Pearson product moment correlation analysis was however applied on the variables in order to determine the level of correlation between them. Results revealed that class size affects class control, students' interest and attention and the time expended in dealing with disciplinary issues in a mathematics class. It was recommended that future research be conducted that will collaborate the importance of class size on students' learning process and achievement. It was also recommended that the class size stated in the National Policy on Education (NPE) regarding student-teacher ratio should be strictly implemented so as to allow teachers carry out their instructional task performance with ease[25].

A similar study was investigated on the impact of class size on the academic performance of students of selected Nursing and Midwifery Training Colleges in the

Central Region of Ghana, and determined the extent to which large class size management techniques employed by tutors enhance academic performance of the students. The study employed mixed methods research approach underpinned by the pragmatist paradigm. Specifically, the sequential explanatory mixed methods design was used for the study. For the quantitative phase of the study, stratified and simple random sampling techniques were employed to select one hundred and thirty one (131) students, while census sampling frame was employed to involve all the fifty six (56) tutors. Also, twenty (20) participants made up of ten (10) tutors who were Heads of Departments and ten (10) student leaders were purposively selected for the qualitative phase. Two related structured questionnaire (one for the students and the other for the tutors) were used to gather data for the quantitative phase, while a semi-structured interview guide was employed for data collection at the qualitative phase. Descriptive statistics (mean, standard deviation) and inferential statistics (one-way between groups analysis of variance (ANOVA), and multiple regression) were used to analyze the data so as to answer the research questions at a significance level of $p < 0.05$. The one-way between groups ANOVA was used to determine the effect of class size on academic performance and large classroom management techniques. The data gathered through the semi-structured interview was also used to support the quantitative results when necessary. The study revealed that class size had an effect on the academic performance of the students where students in small class size recorded higher performance than their peers in large class sizes. The study, therefore, concluded that classroom size significantly influence academic performance of students at all levels. The relationship between classroom size and academic performance was found to be inversely related. Students in large classrooms performed poorly, while students in small classroom size performed better academically. To ensure a more meaningful academic performance among the students,

small class sizes are needed to improve the interaction between tutors and students. Based on this finding, it was recommended that it is pertinent that the management of the colleges pay close attention to the class sizes so as to ensure good academic performance among the nursing school students[26].

An identical study was examined on the perceived impact of class size on academic achievement of junior secondary school students in Awka North Local Government Area of Anambra State, Nigeria. The descriptive survey design was used and the study was guided by four research questions. The population of the study was one hundred and seventy nine (179) junior secondary school teachers from which a sample of one hundred and ten (110) was selected from five schools in the area of study using the simple random technique. The instrument used for data collection was a structured questionnaire titled: ‘‘Perceived Impact of Class Size on Academic Achievement of Students’’ (PICSAAS) which was validated by two experts in Educational Management and Policy and one expert in Measurement and Evaluation (Face and content validity evidence). The reliability of the instrument was ascertained using the test-retest method and the Pearson Product Moment Correlation analysis was used to determine the correlation coefficient of the questionnaire. A correlation co-efficient value of 0.867 was obtained which was interpreted by psychometric analysis as reliable. Data collected were analyzed using weighted means. The results, among others, showed that class size affects students’ academic achievement through interaction between teachers and students. The implications of the study were highlighted and the researcher recommended that government, in order to achieve optimum class size, should build more schools and classrooms for more conducive teaching-learning environments[27].

A study was investigated on the relationship between class size and students’ participation on the academic performance of senior secondary school students in Nigeria.

The population for this study comprised all the Senior Secondary school students in Mainland Local Government Area, Lagos State. The study adopted descriptive survey design and random sampling technique was used in arriving at the selection of two hundred and seventy (270) students and thirty (30) teachers among the population of senior secondary school students in Mainland Local Government Area in Lagos State, which formed the sample of this study. Specifically, students and teachers were randomly selected from six Senior Secondary schools in Mainland Local Government in Lagos State. Forty five (45) Senior Secondary school students and five (5) teachers were randomly sampled from each school. Two self- developed, structured and validated questionnaires (students' questionnaire and teachers' questionnaire) of 15 items for teachers' questionnaire and 18 items for students' questionnaire were used to collect information from the students and teachers after its validity and reliability were determined. The data collected were analyzed using mean, standard deviation, simple percentage while Pearson Product Moment Correlation Coefficient statistical tool was used for hypothesis testing at 0.05 levels of significance. The study revealed that: there is no significant relationship between class size and academic performance; there is significant difference between the students' participation and their academics performance in secondary schools; there is no significance relationship between students' perception of class size and the academic performance; and there is no significance relationship between teachers' perception of class size and the students' academic performance. It was therefore recommended on the basis of the study that although class size did not determine the academic performance of the students, it is still necessary that the government and school owners ensure that adequate and normal class size is provided and sustained in the schools[58].

A similar study was carried out to investigate the effect of class size on the academic achievement of students in basic science and technology in Gwagwalada Area Council FCT Abuja, Nigeria. The study had two specific objectives, two research questions and two null hypotheses. Quasi experimental research design was used. The population of the study comprised of the JSS 3 students of all the Junior Secondary Schools in Gwagwalada Area Council, FCT Abuja. A sample of one hundred and nine (109) students was drawn from Junior Secondary School Old Kutunku in Gwagwalada, Abuja. Purposive sampling was used to select two intact classes from the selected school. The students were divided into two groups (experimental and control group). The instruments used for the study was a self-formulated Basic Science and Technology Achievement Test (BSTAT), designed by the researchers. It consists of a fifty-item multiple choice achievement test with options A-D. It was validated by two experts in the field of test and measurement, Faculty of Education, University of Abuja. Pilot test was conducted in a different school using the test re-test method, and a reliability co-efficient of 0.982 was obtained using Pearson Product Moment co-efficient, indicating that the instrument is highly reliable. Data collected was analyzed using mean, standard deviation and t-test statistics. The findings revealed that students in the small class performed better than those in the large class. Also there was no significant difference in the mean achievement scores of male and female students. The null hypothesis tested at 0.05 level of significance indicated that there is a significant difference between the achievement scores of those in the small class and those in the large class. It was therefore concluded that large population of students in a class has a negative impact on students' academic performance. The study recommended, among others, that the correct ratio of one teacher per thirty five students should be encouraged, as stipulated by the national policy on education. This will enable teachers to teach well and to ensure good classroom

management without much difficulties and challenges. Also, large population in classes should be avoided because it has effect on student's performance. It was also recommended that public address system and a conducive environment should be provided to enable effective communication especially in large classroom[59].

A related study was carried out on the effects of over-population on teaching and learning of among students in junior secondary schools in Potiskum Local Government Area. To guide the study, three research questions in line with purpose of the study were created. Descriptive survey research design was adopted for the study. The target population of the study was the entire teachers in randomly selected four junior secondary schools in Potiskum Local Government Area. Stratified Random Sampling Technique was adopted to select forty (40) teachers from the four (4) junior secondary schools to constitute the sample size of the study. Structure Questionnaire was the major instrument used to collect data for the study. The data collected was analyzed using Mean and Standard Deviation for the questionnaires. The findings of the study revealed that, inability of teachers to pay attention to individual students that need special attention; lack of classroom control and management at overcrowded classroom; and teachers finding it difficult in conducting effective continuous assessment in classroom are some of the problems faced by teachers and students in teaching and learning in over-populated classrooms in junior secondary schools of Potiskum Local Government Area of Yobe state. The findings of the study also revealed that, high numbers of the students in classroom negatively affect academic performance while smaller class size leads to improvement in students' academic performance in junior secondary schools in the study area. The findings of the study further revealed that, admission of the students in junior secondary schools should be based on minimum standard as specified National Junior Secondary School Curriculum and provision of modern teaching aids such as overhead

projectors, power point presentation device that each and every individual student will view the content of the lesson in the classroom are some of the ways forwards for overcoming the problems faced by teachers and students in overpopulated classroom during teaching and learning in junior secondary schools in the study area. It was recommended that, a ratio of 1:35 teacher to students should be strictly adhered to and all other resources such as instructional materials and facilities should also be provided to enable teachers to teach effectively in the junior secondary school classroom as stated in the National Policy of Education[60].

Another closely related study, was examined on the effects of class size on students' attitude and academic performance in English language in Secondary Schools in Ado Local Government, Ekiti State. The study was carried out through the analysis of questionnaires administered to students and their teachers, as well as the analysis of the examination results of selected students in Junior Secondary School two (JSS2) class. The result of the analysis confirmed a negative effect of large class size on the attitude and academic performance of students in English language while the effect of small class size is positive on the students' attitude to the learning of English language and consequently on their academic performance. As a corollary, the study established that teachers' productivity is more positively enhanced in small classes than in large classes. On the basis of the findings, it was recommended that solutions should be provided to ameliorate these negative effects and thus reduce the incidence of large class size in secondary schools in Ekiti State, Nigeria[61].

A similar study was done to assess the influence of school location and class size on academic performance of upper basic nine students in Cross River State, Nigeria. The design adopted for the study was ex-post facto research design. A sample of one thousand six hndred (1,600) upper basic nine students was drawn from eighty one (81) out of four

hundred and sixty four (464) secondary schools in Cross River State using stratified and simple random sampling techniques. The data analysis techniques used included independent t-test and one-way analysis of variance. The results revealed that, there is a significant influence of school location on upper basic nine students' academic performance: urban students performed significantly better than their rural counterparts in core subjects like Mathematics and Basic Science. Again, there was a significant influence of class size on the academic performance of upper basic nine students. Recommendations were made among others that, class sizes in schools should be relatively small to encourage effective learning, and that modern facilities and instructional materials should be provided for rural students who lack the opportunity of urban life and learning experiences. Furthermore, conducive learning environment such as spacious classrooms, well-equipped laboratories, accessible library facilities, recreational facilities, et cetera should be made available to all upper basic nine students, irrespective of their location – urban or rural schools[62].

A related paper was investigated on the impact of class size on students' academic performance across selected public senior secondary schools in Idemili North Local Government Area of Anambra State. The specific objectives in the study were to determine: the effect of class size directly on students' performance; the psychological effect of class size on students' performance and the social effect of class size on students' academic performance in the study area. Self-administered questionnaire was used as instrument for data collection in the study. A sample of one hundred and fifty (150) students in three selected public senior secondary schools was used. Senior secondary two (SS2) and three (SS3) students were used for the study. The students were selected randomly and one hundred and forty (140) questionnaires was correctly filled and collected, ten (10) questionnaires was either not collected or wrongly filled, thereby

rendered invalid by the respondent. The analysis was done using descriptive statistics, percentage and frequencies. It was found that large class size had negative effect on students' academic performance in biology. It was also observed that class size has psychological and social effect on students' academic performance. Where the class size cannot be reduced in a given time due to challenges beyond the control of the school authorities, it was recommended that teachers and management of the school should employ rotational students' group formation and study. These groups could identify common challenges and present it to teachers for support. As a long term measure, Government should increase budget allocation to improve schools infrastructural facilities[63].

A similar study was undertaken on the relationship between class size and students` academic performance in the English Language. The study's main objective was to determine the correlation between class size and students` English language performance outcomes. A combination of survey and correlation research designs was used for the study. The population of the study comprised of two thousand and three (2,003) Senior Secondary School Two students in the selected public schools in Maiduguri Metropolis, Borno State, Nigeria. Four hundred students were randomly selected for the study. Structured questionnaires and proforma were used for data collection. The questionnaire was used to collect self-reporting data. Proforma was used to obtain students` terminal examination results in the English Language. The data collected were analyzed using Multiple Regression Analysis. The finding revealed a strong correlation between class size and students` academic performance in the English Language. Therefore, it was recommended that schools should be provided with spacious classes to accommodate the rapidly increasing population of the students[64].

Another similar study was sought to establish the relationship between teachers' workload, class size and students' academic performance from five selected secondary schools in Singida Urban. The study was guided by three objectives and three research hypotheses. The study employed correlational cross-sectional design. A sample size of two hundred ninety four respondents was randomly chosen from five secondary schools. A self-administered questionnaire was used to collect information from respondents. The collected data were analysed by Statistical Package for Social Scientists (SPSS) using Karl Pearson's Linear Correlation Coefficient and Multiple Regression Analysis to assess the correlation between teachers' workload and class size and students' academic performance. The study results indicated that, there is no significant relationship between teachers' workload and students' academic performance in surveying secondary schools in Singida Urban at the five percent level of significance. Furthermore, the findings show that class size was positively correlated with students' academic performance in secondary schools in Singida Urban. Also, there is a significant difference between teachers' work load and class size in relation to students of academic performance in selected secondary schools in Singida Urban. Based on the study findings, it is recommended that, emphasis should be directed at improving class size if teachers and education stakeholders in Singida Urban have to increase students' academic performance. It was concluded based on the results of the study that, class size is a good predictor of students' academic performance in the surveyed secondary schools in Singida Urban[65].

A similar study was carried out to examine the effect of student-teacher ratio on the academic performance of the primary school students in Odeda Local Government Area of Ogun State. Descriptive survey research design using one hundred and eighteen (118) randomly selected primary school teachers which were employed for the study. The research instruments encompassed a structured questionnaire addressing the socio-

demographic and a secondary data of the students' academic performance. Descriptive statistics was used to analyse the demographic data while simple linear regression was applied to test the two formulated hypotheses at 0.05 level of significance. Results showed that there is a significant effect of student-teacher ratio and the academic performance. However, there was a significant effect of student-teacher ratio on the academic performance of male pupils but a non-significant effect of student-teacher ratio on the academic performance of female pupils. It was therefore, recommended among others, that the State Educational Planners and Policy Makers pay prompt attention to this student – teacher issue, and as well take drastic measures of improving the student-teacher ratio by adopting synergic relationship of both educational administrators and Parent-Teachers Association body in employing more competent teachers for better students' academic performance[66].

Another closely identical study was implemented to examine the effect of class size on students' student's learning achievement in mathematics in junior secondary schools in Bauchi state. The study was quasi-experimental and the population for the study consisted of both students and teachers of mathematics in public schools in Katagum LGA Bauchi state and a sample of three schools were selected at random. Mathematics achievement test (MAT), teacher interview, classroom observation and video recording were the instruments/methodologies to obtain data from students and teachers. Inferential statistics such as Student t-test and ANOVA were used for analysis of the quantitative data while the qualitative data were analysed using content analysis. The research questions were investigated and hypothesis were duly tested at 0.05 level of significance. The results of the analyses showed that performance of students in mathematics is not dependent on class size. It was therefore recommended that although class size did not affect students' performance as reported from the study, government

should however ensure that adequate class size is provided and maintained in the study area. They should also ensure that they provide enough learning materials and teachers should be provided with opportunity to attain teacher training programmes[67].

A similar study was sought to explore the impacts of class size and students' academic performance in Kwimba District in Mwanza, Tanzania. The objectives were to examine the negative effects of class size on students' academic performance, and the challenges teachers face in managing large class sizes to enhance students' performance in public secondary schools in Kwimba District. The Constructivist Learning Theory and Socio-constructivist theory were adopted to guide the study. A mixed research approach in a convergent parallel design was employed to collate and analyze data from the field. In the same vein, the researcher used interviews and questionnaires to get data from the participants. To seek validity and reliability, the instruments were examined through a split-half system to get 0.982 correlation co-efficiency which validated the data collection tools. The process involved both quantitative and qualitative data which later were presented and analyzed through the aid of SPSS. The researcher analyzed qualitative data through content analysis by assigning data into themes, categories, integration, and summarization of the findings for report writing. In examining the negative effects of class size, findings indicated that big or small class size has an impact on students' performance and students do not perform well in big classes as it caused resources to be inadequate, lowers student performance, and ineffective classroom instructions. Also, the study ascertained the challenges teachers encountered in big class sizes, the result showed there are ineffective instruction in the classroom, failure to manage the class effectively and disruption of students in the teaching and learning process[68].

A similar paper looked at how effective teaching and learning can be sustained through the management of class size. Two research questions were formulated. The

population of the study consisted of One thousand, five hundred and four (1,504) Business Education students of 2016/2017 academic session from the Rivers State University, Nkpolu-Oroworukwo and Ignatius Ajuru University of Education, Rumuolumeni, in Port Harcourt, Rivers state. The sample size was one hundred and fifty (150) students randomly selected from the population. Survey design was adopted and self-structured questionnaire titled - SETLeCLsM, using a four-point rating scale, was used to collect data. The instrument was subjected to face and content validity as well as a reliability test which gave a coefficient of stability of 0.988. The research questions were answered using mean and standard deviation. Findings revealed that large class size affects learning negatively. It was recommended amongst others that class size be reduced to normal as recommended by National Universities Commission (NUC)[69].

A closely related study investigated how large class size and the psychological class environment influenced students' academic performance. Survey design was employed. Three hundred and twenty (320) students were purposively selected from ten (10) senior high schools in Kumasi Metropolis. Questionnaire was used to obtain data from the respondents with a reliability coefficient of 0.807. The study revealed that large class size influenced students' academic performance and also limits their learning opportunities. It also came up that psychological class environment have a great influence on students' academic performance. Furthermore, the study showed that students perform well in smaller class size and good psychological classroom environment. It was therefore recommended on the basis of the results of the study that small class size and good psychological class environment are better for good academic performance of the students; Teachers and head teachers should make sure they conform to the required teacher to student ratio of 1:40 recommended by the Ghana Ministry of Education Service; Teachers should create an enabling environment for students to participate in classroom

activities; and lastly, the federal or state Government should ensure that they employ more teachers and build more classrooms to solve the problem of large class size in the senior high schools in Ghana[70].

An identical study was also investigated on the impact of larger class sizes on the academic performance by students. This study used secondary data as source of data collection. The sample for the study was made up of eight hundred and seventy four (874) business, management, and commerce students who followed an educational course between 2018/2019 and/or 2019/2020 at the Malta College of Arts, Science and Technology (MCAST). Several variations of the proposed Ordinary Least Squares (OLS) regression model have been tested to produce the best possible model intended to test for a scientific relationship between the two variables, whilst controlling for a set of academic and socio-economic characteristics affecting students' academic performance. Results suggest that larger class sizes lead to lower end of course scores obtained by students. Furthermore, a statistically significant positive relationship is also evident between the end-of-course score and the students' age, level of studies, and attendance rate. Also, students' family background and the distance from college are proved to be significant indicators to explain changes in the dependent variable. Such findings encourage management teams in schools to design smaller class size so as to enhance students' academic wellbeing and advance the economic and social development of society, furthermore, the government should also ensure that the right teacher and student ratio is strictly adhered to[71].

A closely identical study was carried out on effects of class size and peer influence on senior secondary students' achievement in public examinations in Owerri Zone I of Imo State. The study adopted inferential survey designs to examine the effects of class size and peer influence on students' achievement. Two research questions and

one hypothesis were tested in the study. Eighty-five (85) participants from three senior secondary schools were exposed to two research instruments. Results showed main effect of class size on students' achievement, and interaction effects of class size and peer influence on students' achievement. Most of the students in large class sizes may not comprehend the concept of what is taught by the teacher as the size deters them from voicing out to ask questions. This could negatively affect the student's achievement in the class. It was noted that when students are placed in smaller classes, they become more engaged both academically and socially and with strong social academic engagement, academic achievement improves. However, most students reported that teachers-student interaction is mostly neglected in the large class sizes[72].

A related paper was examined on the influence of class size on students' academic achievement in Social Studies in Colleges of Education in Cross River State, Nigeria. The research design adopted for this study was the Expost facto design. The population of the study was made up of students in the College of Education Akamkpa and the Federal College of Education Obudu offering Social Studies in the 2016/2017 academic session, totaling one thousand, three hundred and forty three students (1,343); out of which seven hundred and fifty three (753) students were sampled for the study. The main instruments used for data collection were Class Size Questionnaire (CSQ) and Social Studies Achievement Test (SOSAT). Split-half method of reliability was used to establish the reliability estimate of the instruments. The statistical analysis technique adopted was the one way analysis of variance (ANOVA). The result indicated that, class size has significant influence on students' academic achievement in Social Studies. Based on the finding of the study, it was recommended that Government should build more classrooms in order to reduce the large class size to measurable class size, as small class size produces better academic achievement than large class size[73].

2.3.2 Teacher Factors and Students' Academic Achievement in Economics

A study was implemented on teacher factors influencing students' academic performance in public secondary schools in Rivers State using the descriptive survey research design. The population of the study was two hundred and seventy four thousand, seven hundred and twenty four (274,724) made up of two hundred and forty thousand, five hundred and fifty six (240,556) Senior Secondary School Two (SSSII) students and thirty four thousand, one hundred and sixty eight (34,168) teachers in the twenty three (23) Local Government Areas of Rivers State in the 2018/2019 academic session. The sample size of the study was seven hundred and sixty four (764) comprising three hundred and eighty (380) teachers and three hundred and eighty four (384) students which were gotten by applying the online Fluid Survey Sample Size Calculator. The sample was categorised into urban teachers comprising of one hundred and sixty three (163) and Senior Secondary School Two (SSSII) students comprising of two hundred and thirty (230); and rural teachers comprising of two hundred and seventeen (217) and Senior Secondary School Two (SSSII) students comprising of one hundred and fifty four (154) in the various selected public secondary schools in Rivers State. The instrument used for data collection was a researcher-developed structured questionnaire titled – "Teacher Factors on Students' Academic Performance (TFSAP)" with a reliability coefficient of 0.882 which was established using Cronbach's Alpha. The research questions were answered with means and standard deviations computed from the collected data, while the independent samples t-test was used to test the hypotheses at the 0.05 level of significance. It was found that teacher's administration of students' assignments, teachers' commitment to duty, and teacher-students interaction were poor and as such could not significantly influence students' academic performance. It was further found that teachers' communication skills were good and influenced students' academic

performance, but that teachers had excess workload that impinged their influence on students' academic performance. It was recommended, among others, that teachers' workload should be made less heavy in order to make them effective and be able to administer students' assignments and other duties, enhance teachers' salaries and other incentives to whip up their commitment to duty[20].

A similar study was determined on the relationship between teachers' attributes and students' academic performance in public senior secondary schools in Maiduguri Metropolis, Borno State. The specific objectives were to determine the influence of Qualification on academic performance of students in public secondary schools in Maiduguri Metropolis, Borno State, Nigeria and to find out the influence of experience on students' academic performance in public Secondary schools in Maiduguri Metropolis, Borno State, Nigeria. The null hypotheses stated were that - there is no significant relationship between teachers' qualification and students' academic performance in public secondary schools in Maiduguri Metropolis, Borno State, Nigeria and there is no significant relationship between teachers' experience and students' Academic performance in public secondary schools in Maiduguri Metropolis, Borno State, Nigeria. These two hypotheses were tested at 0.05 level of significance. The study used correlation research design. The population of the study comprised of one thousand two hundred and thirty six (1,236) teachers in all the sixteen public senior secondary schools and thirty three thousand, six hundred and ninety nine (33,699) Senior Secondary School three (SSS 3) students between the year 2014 and 2018 in public senior secondary schools in Maiduguri Metropolis, Borno State. A simple random sampling technique was used to sample a fraction of four hundred and ninety five (495) teachers and thirteen thousand, four hundred and eighty (13,480) Senior Secondary School three (SSS 3) students. Academic performance of the students were determined using secondary sources which

was obtained from their WAEC results in five (5) basic science subjects. Also, a self-developed questionnaires and profoma was used as instruments for collection of primary data. The questionnaire was subjected to content validity and also Cronbach's Alpha statistical tool to determine the reliability of the instrument. Findings revealed that there is a significant positive relationship between teachers' qualification and students' academic performance in Public Senior Secondary Schools in Maiduguri Metropolis, Borno State, Nigeria. Another finding revealed that there is a significant positive relationship between teachers' experiences and students' academic performance in Public Senior Secondary Schools in Maiduguri Metropolis, Borno State, Nigeria. Based on the findings, it was concluded that teachers' attributes affect the students' academic performance positively. This implies that teachers' attributes significantly affect the students' academic performance in Maiduguri Metropolis, Borno State, Nigeria. Based on the findings, it was recommended that Government and Teaching Service Board should encourage and support teachers to obtain higher educational qualification as it found to be significantly related students' academic performance; again, the Borno State Ministry of Education and Teaching Service Board should ensure that teachers with more experience are posted to higher classes since it is found to be significantly related to the senior secondary school students' academic performance[74].

A similar study was investigated on the influence of teachers' factors on academic performance of Business Studies' students in Edo State. Three research questions were raised with three corresponding hypotheses formulated and tested at alpha level of 0.05. The study utilized a correlational design and a total sample size of two thousand, three hundred and seventy four (2,374) Business Studies' students and sixty five (65) Business Studies teachers were used for the study. Three instruments were developed by the researcher and they were all validated by experts and only Business Studies Achievement

Test (BUSAT) was subjected to reliability and it yielded a co-efficient of 0.887. The data collected were analyzed using the Statistical Packages for Social Sciences (SPSS). The analysis yielded the following results among others: there is a significant relationship between teachers' qualification and students' academic performance in Business Studies; there is a significant relationship between teachers' teaching experience and students' academic performance in Business Studies and there is no significant relationship between teachers' teaching strategy and students' academic performance in Business Studies. Based on the findings and conclusion, the study recommended among others that: government should put in much effort in ensuring that right teacher factors are put in place for optimum performance of the students in Business Studies in the schools[75].

A similar study was investigated to establish the influence of teacher related factors on students' academic performance in Kiswahili composition in public secondary schools in Kisumu West Sub-County, Kenya. The study employed descriptive survey and correlation designs. Target population was one thousand, six hundred and twenty two (1,622) Form four students, fifty four (54) teachers of Kiswahili Language, thirty three (33) Heads of Department (HOD) and one (1) Sub-County Curriculum Support Officer (SCCSO). Purposive sampling technique was used to select a sample of forty eight (48) teachers, twenty nine (29) HOD and one (1) SCCSO. A sample size determination formula was used to select a sample of three hundred and ten (310) Form four students. Teacher and student questionnaire, HOD/SCCSO interview schedule and Kiswahili composition test were used for data collection. The study found a positive strong relationship between teachers' related factors and students' academic performance. It was concluded that an improvement in teacher related factors increased students' academic performance in Kiswahili composition. On the basis of the study, it was therefore recommended that teachers should be constantly engaged in refresher courses, seminars

and symposia to update their skills on Kiswahili language pedagogy so as to improve students' academic performance; also, all teacher related factors must be strictly monitored in order to ensure that the right teachers are the ones teaching the students for optimum learning and performance outcomes[76].

Another similar study was carried out to investigate the influence of teacher related factors on students' academic performance in public secondary schools in Makueni Sub County, Makueni County. The study was focused on finding out how teacher related factors influence the students' academic performance in secondary schools. The study was based on capital theory. The design that employed to carry out the study was the descriptive survey research design. The study targeted forty eight (48) form three students, fifty four (54) teachers and thirty six (36) form three parents from Makueni Sub County in Makueni County. Purposive sampling and simple random sampling technique was used in selection of the respondents. The researcher made use of questionnaires and interview guide to collect data. Descriptive and inferential statistics were used to analyze the data. The data collected was analyzed using various descriptive and inferential statistical methods such as mean, standard deviation, frequency and percentages via the Statistical Package for Social Sciences software. The results of the study revealed that frequent use of lecture method in teaching brought about poor academic performance. On the basis of this finding, it was therefore recommended that administrators should ensure teachers who are skilled with the use of right methodologies are employed; teachers should also be supervised in order to ensure that they use various teaching methods for quality teaching of the students; and teachers should be allowed to also attend workshops, seminars and conferences so as to become equipped with the current teaching approaches[77].

A similar study was carried out to investigate the influence of teachers' characteristics on students' academic performance of Biology in secondary schools in Calabar Municipality of Cross River State, Nigeria. A survey research design was employed. Two instruments were used for data collection. These instruments were - Questionnaire and Achievement Test in Biology. Simple random sampling was employed to select one hundred and fifty (150) Senior Secondary School Two Biology students and five (5) teachers. Data collected were analyzed using One-way Analysis of Variance (ANOVA). Three null hypotheses were formulated and tested at 0.05 level of significance. The result of the investigation revealed that teacher characteristics such as teachers' qualification and teachers' years of teaching experience have a significant influence on students' academic performance in Biology, while teacher characteristics such as teachers' attitude did not influence students' academic performance. Based on these findings, it was recommended that Government should put in place measures and incentives in order to encourage and motivate experience teachers in the school system; teachers should also be allowed to embark on continuous education to equip them in the area of teaching; teachers should also ensure that they have the right attitude towards teaching; and lastly, students should learn to be studious for their academic performance[78].

A similar study was implemented on teacher variables and their relationship with academic performance of students in economics. The study was conducted in Shongom local government of Gombe State, Nigeria. The population for the study consisted of one hundred and fifty (150) economics teachers from all thirteen (13) senior secondary schools in Shongom Local Government Area of Gombe State, Nigeria. The reason for choosing Shongom LGA Gombe State was because of its usefulness to the research. Stratified random sampling technique was employed in selecting seven senior Secondary School in Shongom LGA Gombe State. Among the schools selected, three were

Government school, three were private School, and one was a missionary School. About one hundred and eight (108) economics teachers in seven senior secondary schools mentions out of the total population of one hundred and fifty (150) were selected as sample for the study. Data for this study was collected from primary and secondary sources. Primary sources of data was obtained through the use of questionnaire while secondary source of data was obtained from the students' academic record in the various selected schools. The questionnaire was validated by experts and also subjected to Cronbach's alpha analysis for internal consistency of the instrument. The Cronbach's alpha gave a correlation coefficient value of .874 which was considered reliable according to psychometric test for reliability interpretation. It was found out that, academic performance of students is significantly influenced by the effectiveness of the teachers with effective teacher classes performing better than their counterparts in the classes with ineffective teacher. It was also reported that the professional qualifications of teachers significantly and positively influence the academic performances of their students. It was also revealed that there is a significant relationship between teachers' variables such as method of teaching, effectiveness, teacher qualification and students' achievement in economics at the secondary schools in Shongom Local government area of Gombe State. Based on the findings of the study, it was recommended that some variables like sex, experiences, qualifications, locations as well as population of the students should be considered before posting teachers by the concerned ministry of education bodies in the state[79].

2.3.2.1 Teachers' Mastery of Subject Content and Students' Academic Achievement in Economics

A study was done to investigate the influence of teacher's subject matter knowledge on students' academic achievement in Kiswahili language. This study was

guided by Teachers' Efficacy theory. The study was conducted in Kathonzweni Sub County, Kenya. The target population comprised of sixty (60) Kiswahili teachers and thirty nine (39) principals in all the thirty nine (39) public secondary schools in the Sub County. The sample size was all the thirty nine (39) principals and sixty (60) Kiswahili hence Census Survey. Questionnaires for principals and teachers were used as instruments of data collection. The objective of the study was; to establish the influence of teacher's subject matter knowledge on students' academic achievement in Kiswahili language in public secondary schools in the Sub County. Both questionnaires were piloted for reliability and yielded on Cronbach's Alpha Coefficient of 0.833 for principal's questionnaire and 0.938 for teachers' questionnaire. The data collected was quantitatively analyzed using Statistical package of Social Sciences (SPSS). Pearson Correlation was employed to establish relationships between the variables. The findings showed that teachers' subject matter knowledge had significant influence on students' achievement on Kiswahili language[9].

A research work was carried out to study the effects of teacher subject mastery on the academic performance of secondary school students in Jalingo L.G.A. The main objective of the study was to: determine the effect of teacher subject mastery on the academic performance of secondary school students in selected secondary schools in Jalingo, and their involvement in examination malpractice. Data were collected using Questionnaire. Five (5) schools were sampled, in each of the schools, ten (10) teachers were selected to participate in the study, making a total number of fifty (50) teachers in all. The data collected in this study were analyzed through descriptive and inferential statistics. The data collected were analyzed using frequency counts, simple percentage, mean, standard deviation and Pearson product moment correlation. The mean and standard deviation were used to provide answers to the research questions. The

hypothesis was tested at 0.05 level of significance. The study revealed that subject mastery significantly affects the academic performance of secondary school students in Jalingo. It was recommended on the basis of the finding that continuous training workshops and seminars should be organised for practicing teachers; school administrators should devise a means to identify and tackle weaknesses in teachers' subject knowledge; and subject mastery should be a criterion for recruitment of teachers in secondary schools[12].

A closely related study was investigated on the influence of teachers' competence on students' academic performance in public senior secondary schools in Ikot Ekpene and Essien Udim Local Government Areas of Akwa Ibom State. Two objectives and two null hypotheses guided the study. The total population consisted of thirty two thousand, three hundred and three (32,303) students consisting of fourteen thousand, six hundred and thirty six (14,636) males and seventeen thousand, six hundred and sixty seven (17,667) females from nineteen (19) Public Senior Secondary Schools in Ikot Ekpene and Essien Udim Local Government Areas of Akwa Ibom State. A sample size of three hundred and twenty three (323) students consisting of one hundred and fifty four (154) males and one hundred and sixty nine (169) females was derived using Taro Yamane's formula. The instrument for the study was a self-structured questionnaire titled - "Influence of Teachers' Competence on Students' Academic Performance Questionnaire" which was on a four-point rating scale of Very High Extent, High Extent, Low Extent and Very Low Extent and was validated by experts in the Departments of Measurement and Evaluation and Educational Management. The instrument was pre and post-tested using a pilot sample size of ten (10) teachers and a reliability index of 0.970 was obtained using the test-re-test reliability method. Mean and standard deviation were used to answer the research questions, while the z-test was employed in testing the formulated null

hypotheses at 0.05 level of significance. The major findings were that teacher's subject content knowledge and pedagogical skills influence students' academic performance in public senior secondary schools. Based on the findings, it was recommended that teachers should be encouraged to go for both long term and short term training to boost their qualification in subject content knowledge teaching skills in senior secondary schools. Government should also ensure adequate selection of competent and qualified teachers to teach in all senior secondary schools[31].

Another similar study was investigated on the influence of students' perception of teachers' subject mastery and classroom management on students' academic performance in chemistry in Calabar Municipality, Cross River State, Nigeria. The design of the study was descriptive survey while the population consisted of all Senior Secondary two (SS11) students in the area of study. The sample was two hundred (200) SS2 students who were composed through simple and stratified random sampling technique from the population. Relevant data for answering the two hypotheses were collected from the sample through the administration of Students' Perception of Teachers' Attitude to Work Questionnaire (SPTAWQ) on them. The Cronbach Alpha reliability coefficient of sections B and C of the instrument were .783 and .884 respectively. Two hypotheses were tested with One-way Analysis of Variance statistics and the result showed significant positive influence of students' perception of subject mastery and classroom management on students' academic performance. It was therefore recommended that teachers who have mastered their subject should be recruited. Furthermore, teachers should be properly trained by engaging them in seminars, workshops and conferences so as to enable them master their craft for improved academic achievement of the students[32].

A similar study was examined on teachers' content knowledge as predictor of students' achievement in English language in Ibadan Metropolis Methodology:

Descriptive research design was adopted using forty-four (44) teachers and One thousand seven hundred and sixteen (1716) senior secondary two students selected through random sampling technique. Three research instruments were used to generate data namely: Teachers' Attitude to English Language Teaching Questionnaire, Teachers Subject Mastery Scale and English Language Achievement Test. The data collected were analysed using multiple regressive at 0.05 level of significance. Results indicated that there is a significant positive relationship between teachers' subject mastery and students' achievement[34].

A similar study was examined on the relationship between teachers' subject mastery and questioning behaviour and students' achievement in English grammar in the Gambia. The descriptive survey research design was employed to carry out the study. The sampled respondents for the study comprised of three hundred (300) students and ten (10) English language teachers from four senior secondary schools in Kanifing Municipal Council. Two research instruments were used and the data were analysed using inferential statistics such as Pearson Product Moment Correlation (PPMC). The result of the investigation showed that independent variables predicted students' achievement in English grammar. Teachers' subject mastery and questioning behaviour contributed significantly to students' achievement in English grammar in the Gambia. On the basis of findings, it was recommended that educational stakeholders in the nation should always ensure that there is regular training of in-service and pre-service English language teachers on subject mastery and questioning behaviour in the ESL classrooms in order to make sure that the academic achievement of the students are improved[80].

A closely related study was carried out on the influence of social studies teachers' subject matter mastery on students' academic performance in Kaduna State, Nigeria. The study had one objective, one research question, and one null hypothesis. The objective

was to determine the influence of social studies teachers' subject matter mastery on students' academic performance in Kaduna State, Nigeria. The study covered only social studies teachers within the three (3) senatorial zones of Kaduna State, namely zone one (1) Northern Kaduna, zone two (2) Kaduna Central and zone three (3) Southern Kaduna. The study reviewed related literature on constructivist theory, and some empirical studies. The study adopted descriptive survey design. Two thousand, two hundred and seventy one (2,271) social studies teachers of public secondary schools formed the population of the study. A total of three hundred (300) social studies teachers selected from thirty (30) public secondary schools were sampled based on stratified sampling technique. The study adopted the stratified sampling technique. The instrument used to collect data was a fixed response questionnaire designed by the researcher. Frequency and percentages were used in analyzing the respondents' opinions, while one sample t-test was employed to test the hypothesis at $P<0.05$ level of significance for acceptance or rejection and the hypothesis was rejected. The findings revealed that, social studies teachers' mastery of the subject matter have positive influence on the findings. It was recommended that focus should be made on organizing workshops on subject matter knowledge/mastery so as to solve the problem of subject of matter mastery[81].

A similar paper was focused on teachers' content and pedagogical content knowledge on students' achievement in algebra. Using a test re-test quasi- experimental design with a 3x3x2x2 factorial matrix, about four hundred and twenty one (421) senior secondary school two students and twelve (12) mathematics teachers were purposively sampled from eight (8) public and four (4) private schools in Education District five of Lagos State. Three instruments (questionnaires) were used for data collection. The questionnaires were subjected to face and content validity evidence and also Gutman's split half reliability method using Spearman Brown reliability coefficient. The Spearman

Brown reliability coefficient gave values of 0.977, 0.879 and 0.981 respectively for the three questionnaires. These values were interpreted as reliable based on Psychometric test. Data were analysed using graphs and inferential statistic such as ANCOVA. The results revealed that all categories of the subject were equally affected by teachers' content and pedagogical content knowledge in algebraic achievement after exposure to teacher' content knowledge. However, it was indicated that students were not equally affected by teachers' content and pedagogical content knowledge in algebraic achievement test. On the other hand, it was shown that gender has no significant effect on students' achievement in algebra after exposure to teachers' content and pedagogic knowledge. Furthermore, results showed that school type has no significant effect on students' achievement in algebra after exposure to teacher' content and pedagogic knowledge. Also, it was revealed that there is no significant interaction effect of content and pedagogical knowledge, gender and school type on students' achievement in algebra. In view of the findings, it was recommended that teachers of Mathematics, with in-depth knowledge of the subject who are well-groomed in teaching pedagogy should be allowed to teach algebra in schools[82].

An identical study was carried out to investigate how students' negative attitudes towards physics can be changed by teachers' mastery of subject matter. That is, the study was based on the framework that, teachers' effectiveness can change physics students' negative attitudes to positive. The sample of the study was made up of one thousand, eight hundred (1,800) from a population of four thousand, two hundred and twenty (4,220) physics students of form three. The study was carried out in sixteen secondary schools in the South West Region of Cameroon. The stratified random sampling technique was employed to select schools for the study. Simple random sampling technique was employed to select the students. A questionnaire was designed and the reliability verified

using statistical package for social sciences (SPSS). The reliability coefficient of the questionnaire for student evaluation of teachers' effectiveness had a Cronbach's alpha of 0.884. The quantitative data collected were subjected to both descriptive and inferential statistics. The data collected were analyzed descriptively using mean, standard deviation, frequency and percentages. Inferentially, the data were analyzed using chi square test of independence. The main finding of this study was that teachers' in-depth understanding of subject matter can change students' negative attitude towards physics to positive. It was therefore concluded on the basis of the findings that, effective teachers' mastery of the content can change students' negative attitudes towards physics to positive attitudes[83].

A similar study was examined on the influence of students' perception of teachers' knowledge of subject matter/lesson presentation and academic achievement in Physics in Calabar Municipality, Cross River State, Nigeria. Two hypotheses were formulated to direct the study and literature was reviewed on the variables under study. Ex-post facto design research was adopted for the study. A total sample of fifty (50) Physics students were selected using simple random sampling procedure. The questionnaire and Physics Achievement Test (PAT) were the main instruments used for data collection. The reliability estimate of the instrument was established through Cronbach's Alpha reliability and Kudar-Richarson's formular (KR-21) which yielded an estimate of .983 and .881 respectively. One Way Analysis of Variance (ANOVA) statistic was adopted to test the two hypotheses at 0.05 level of significance. The result of the analysis revealed that there is a significant influence of students' perception of teacher knowledge of subject matter and academic achievement in Physics. Secondly, the finding revealed that mode of lesson presentation has significant influence on students' academic performance in Physics. Based on this finding, it was recommended among others that teachers should improve their knowledge of the subject matter and mode of presentation

of subject content by ensuring that they attend conferences, seminars and workshops organized by educational stakeholders in order to enhance students' academic achievement[84].

A similar study was carried out using structural equation modeling to determine the relationship between teachers' mastery of subject knowledge and students' academic performance with mediating effect of teachers' commitment. A quantitative research approach was employed to determine the relationship among the three variables. Four hundred (400) teachers were selected through stratified random sampling technique. Structural equal modeling (SEM) analysis was employed to test the data fitness in with constructs formulated in the model. Based on the findings of the study, there was direct and significant relationship between teachers' mastery of subject knowledge and students and academic performance. Also, teacher commitment was able to mediate on the relationship between teachers' mastery of subject knowledge and students' academic performance. It was recommended based on the findings that schools should be ensure that their teachers' level of knowledge in subject matter is improved upon by providing them with in-service training[85].

Another very similar study was investigated on the predictive value of Teachers' Depth of Subject Content Knowledge and Depth of Pedagogical Knowledge on Students' Academic Achievement in English Language and Mathematics. Specifically, the study investigated which category of teachers (B.Ed./B.Sc.Ed./B.A.Ed.; PGDE; or B.A./B.Sc) had the deepest Depth of Subject Content Knowledge; the deepest Depth of Pedagogical Knowledge; the deepest Depth of Subject Content and Professional Knowledge; and the predictive ability of Depth of Subject Content and Professional Knowledge for Students' Academic Achievement. The sample comprised seventy-eight English Language and Mathematics teachers from thirty-two randomly selected secondary schools in Kwara

State; and the intact SS II classes taught by the teachers. Quantitative data were collected through tests, observations and vignettes; and analysed using descriptive and inferential statistics. Findings showed that teachers with B.Sc. demonstrated the deepest Depth of Subject Content Knowledge, Depth of Pedagogical Knowledge and Depth of Subject Content and Professional Knowledge. Also, pedagogical and subject content knowledge of teachers were found to be significant predictors of Students' Academic Achievement. Significant differences were observed between the Depth of Subject Content Knowledge and Depth of Pedagogical Knowledge of the English Language and Mathematics teachers in favor of Mathematics teachers. Similarly, students' performance in English Language was lower than that of Mathematics, though not statistically significant. These findings raised concerns of profound implications for teachers' education curriculum in Nigeria[86].

2.3.2.2 Teachers' Attitude and Students' Academic Achievement in Economics

A study was investigated on the influence of teachers' personality in terms of attitude on the academic achievement of chemistry students in Ekiti State, Nigeria. The research design used was survey design of the descriptive type of research. The sample size of two hundred (200) respondents was sampled for the study using simple random sampling technique to select public secondary schools across Ado, Ikole and Ikere Local Government Areas of Ekiti State. The respondents were drawn from fifty selected secondary schools with two chemistry teachers being selected from each school. The instrument for data collection for the study was a self-structured questionnaire. The split-half method of reliability was employed to ascertain the reliability of the instrument using Spearman Brown's form Pearson Product Moment Correlation statistical analysis. A coefficient of 0.899 was obtained. Frequency counts and percentage were used to analyse the demographic characteristics of respondents to answer the research questions while the hypotheses were tested using inferential statistics of Correlation statistical analysis. The

findings of the study showed that there was a significant positive correlation between teachers' attitude and academic achievement of chemistry students[4].

A similar study was undertaken on the impact of economics teachers' attitude on student's attitude and academic performance in Bauchi Educational zone. The population consisted of twenty nine thousand, one hundred and ninety nine (29,199) senior secondary school two (SSSII) students of government owned senior secondary schools and Two hundred and Forty-Five, (245) economics teachers. A sample size of four hundred and twenty (420) students and twenty one (21) economics teachers were drawn from the population of the study. Stratified or multi stage sampling procedure and sample size determination table were used to achieve the sample size for the study. Three research questions and two null hypotheses were raised to guide the study. The data obtained was analyzed using the appropriate tools and procedure in SPSS version 26. The result revealed a positive relationship between teachers' attitude and students' attitude towards learning Economics. The result also revealed that students' attitude towards learning of Economics has a significant impact on their academic performance. It was recommended that teachers were advised to build excellent rapport with students and create an attractive and enjoyable environment to ensure students are dynamically involved in the classroom activities so as to arouse their attitudes towards Economics subject[10].

A closely identical study was examined on teachers' attitudes towards the teaching of basic science and technology and students' achievement in the subject at junior secondary school three in Ibadan metropolis. The study adopted a descriptive survey method. Data were collected from forty (40) basic science and technology teachers and one thousand, six hundred (1,600) students made up of one thousand and sixty (1,060) from Ibadan city and the remaining five hundred and forty (540) from Ibadan less city.

The researcher used descriptive statistics and inferential statistics for this study. Three hypotheses were formulated and tested and two instruments were used for data collection in this study. The findings showed a positive disposition towards basic science and technology teaching and a significantly positive correlation between teachers' attitudes and students' achievement in basic science and technology. It is recommended that the government and all those concerned with education in the country should get more committed and invest more funds, time, and energy towards making teaching especially science and technology more attractive to teachers[30].

An identical study was examined on teachers' attitude as predictor of students' achievement in English language in Ibadan Metropolis. A descriptive research design was adopted using forty-four (44) teachers and One thousand, seven hundred and sixteen (1,716) senior secondary school two students selected through random sampling technique. Three research instruments were used to generate data namely: Teachers' attitude to English language teaching questionnaire, Teachers subject mastery scale and English language achievement test. The data collected were analysed using multiple regressive at 0.05 level of significance. Findings revealed a significant positive relationship between teachers' attitude and students' achievement in English language in Ibadan Metropolis, Oyo State[34].

A study was carried out on the need to provide empirical evidences and establish the relationship existing between teachers' attitude and students' achievement as well as the relationship between teacher-student and students' academic achievement in agricultural science in Abia State, Nigeria. Two specific objectives guided the study. Two research questions as well as two null hypotheses were formulated and tested at 0.05 level of significance. The study adopted correlational study design. The study was carried out in Abia state. The population of the study was nine thousand, nine hundred and sixty

three (9,963) consisting of nine thousand, six hundred and ninety (9,690) students and two hundred and seventy three (273) teachers of agricultural science. The sample size of three hundred and thirty (330) respondents consisting of thirty (30) teachers and three hundred (300) students were selected and used for the study. A multistage sampling (simple random-purposive-simple random) procedure was adopted for this study. The study made use of two instruments for data collection; a questionnaire titled; Teacher Relationship and Attitude Questionnaire (TRAQ) structured on 4-point scale of 4=Highly Utilized (HU), 3=Utilized (U), 2=Averagely Utilized (AU) and 1=Not Utilized (NU) and a standardized agricultural science achievement test (AAT) adapted from 2018 WAEC agricultural science paper 2. The instruments were validated by three experts, two from the Department of Agricultural/Home-science Education and one from Department of Measurement and Evaluation in College of Education, Michael Okpara University of Agriculture, Umudike. The reliability of the instrument for the study was determined using split-half method of reliability which gave a reliability coefficient of 0.982 and 0.988 for the two instruments respectively. Three hundred and thirty (330) Copies of TRAQ and AAT were administered to the respondents but three hundred and twelve (312) copies of the administered instruments were retrieved representing 94.5% retrieval rate. The data collected were analyzed using Pearson Product Moment Correlation to answer research questions and linear regression to test the hypotheses at 0.05 level of significance. It was found out that there is a significant relationship between teachers' attitude and students' achievement as well as between teacher-student relationship and students' academic achievement in agricultural science. Based on the findings, it was recommended among others that teachers should know that their relationship with their students plays a vital role in the students' achievement. As a result, they should always

create a good relationship with their students. Positive and negative reinforcement should only be utilized when and where necessary[35].

A similar study examined how teachers' attitude and morale correlates of students' academic performance in Financial Accounting in senior secondary schools in Adamawa State, Nigeria. Three research questions and three hypotheses were formulated and tested at a significance level of 0.05. The study used correlational survey research design. The population of the study was one hundred and eighty seven (187) Financial Accounting Teachers. As a result of the relative small size of the population - one hundred and eighty seven (187), census sampling technique was adopted. The instrument used for the data collection was a structured questionnaire titled - "Financial Accounting Teachers' Attitude and Morale in Senior Secondary School Questionnaire (FATAMSSSQ)" while the WASSCE results of Financial Accounting students for 2019 was obtained from the Ministry of Education, Yola to determine the mean score for academic performance. The instrument FATAMSSSQ was validated by three (3) experts (two from the department of Vocational Education and one from department of Physical Science Education) from the Modibbo Adama University of Technology, Yola. The instrument was also trial tested using Cronbach Alpha that showed a reliability co-efficient of 0.873. The data collected were analysed using Mean and Standard Deviation for answering the research questions; while Pearson's Product Moment Correlation (PPMC) was employed to test hypotheses 1 and 2 with Multiple Regression Analysis to test hypothesis 3 at significance level of 0.05. The findings of the study include among others that there was a significant high positive relationship between teachers' attitude and students' academic performance in Financial Accounting in Senior Secondary Schools in Adamawa State, Nigeria. Also, that there was a significant high positive relationship between teachers' morale and students' academic performance in Financial

Accounting in Senior Secondary Schools in Adamawa State, Nigeria. Similarly, teachers' attitude and morale was revealed to significantly predict students' academic performance in Financial Accounting. Thus, it was concluded that teachers' attitude and morale correlate with students' academic performance in Financial Accounting in Adamawa state, Nigeria. The study recommended among others that school authorities should organise various seminars and conferences on work ethics, in order to help reform teachers' attitude in the class[36].

An identical study was carried out to find out the teachers' attitude towards using ICT in teaching Physics. The information needed was obtained through administering questionnaires to one hundred and forty eight (148) Physics teachers both in public and private secondary schools. Furthermore, the study was sought to find out the effect of using ICT on academic achievement of Secondary School Physics students in Mombasa County. To achieve this, an experiment was conducted involving one hundred and forty three (143) Form Two Physics students and one Physics teacher in a purposively selected secondary school. The quantitative data was derived by the use of Likert rating Scale while the experimental data was derived through pre-test and posttest using achievement test. The data gathered were analysed using descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and a two-way analysis of variance (ANOVA) with the aid of the Statistical Package for Social Science (SPSS) software IBM version 20. The results of the study showed that students performed better in Physics when ICT was applied in the teaching of Physics which agrees with others researchers in literature. On the basis of these findings, it was concluded that it is necessary to ensure that teachers with the right attitude towards the usage of ICT are recruited for optimum performance of the students in Physics[37].

A study was carried out to find out the influence of some teachers' attitudes towards teaching profession on the perception of non-education under graduate students of private universities in Enugu State Metropolis of teaching profession. The population of the study consisted of all the three thousand, six hundred and forty one (3,641) non-education undergraduate students of both Godfrey Okoye and Caritas universities in Enugu. The sample size of three hundred and sixty (360) was employed for the study. The sample size was determined using Yamane's (1964) statistical formula. Based on that, three hundred and sixty (360) copies of questionnaire were distributed to the respondents. The data collected were analysed using statistical package for social sciences (SPSS). The findings among others were that some teachers were incompetent in delivering their lessons, demanding money from students to pass them in their examination and befriending female students which negatively influence undergraduate students' perception of teaching profession. It was concluded among other things some teachers' negative attitude toward teaching profession and unethical behaviour exhibited by some teachers contributed a great extent to the poor perception of undergraduate students towards teaching profession. The recommendations made were that the teachers should be proud of their profession, prepare their lesson very well to show mastery of their subject matters and exhibit positive attitudes towards their profession so as to encourage students to be desirous of teaching profession[38].

A similar study was investigated on teachers' attitude towards teaching and students' performance in English grammar in selected senior secondary schools in Osogbo metropolis, Osun State, Nigeria. The study adopted a descriptive research design of survey type to provide answers to two research questions. A total of twelve (12) teachers and three hundred (300) students were randomly selected from the six Government High Schools in Osogbo metropolis, covering Osogbo and Olorunda Local

Government Areas in Osun State. Teacher Attitude Questionnaire (r=.889) and English Grammar Achievement Test (r=.874) were used in data collection. Data collected were analyzed using frequency counts, simple percentage and Pearson Product Moment Correlation. The findings of this study revealed that majority of the teachers who participated in the study had negative attitude towards the teaching profession. The findings also showed that teachers' attitude towards teaching had a positive significant relationship with students' academic achievement in English grammar. Based on the findings of the study, it was recommended that government at all levels should ensure prompt payment of teachers' salary and other allowances for improved interest in and commitment to their work; only teachers who are passionate about teaching should be employed as teachers; and that the people should see teachers as indispensable elements in the development and sustenance of the society; hence, accord them necessary respect[42].

A similar study of the descriptive-correlation type was carried out on the impact of teachers' attitude towards profession on student's academic achievement at secondary school level. The quantitative method was employed while the population consisted of one hundred and forty eight (148) boy's school, one thousand, six hundred and forty nine (1,649) male teachers and thirty seven thousand, three hundred and twenty four (37,324) boys' students at secondary school at district Peshawar and Charsadda. The cluster sampling technique was employed to select six hundred (600) male teacher and four hundred (400) boy's students were selected in both districts. Teacher Attitude Towards the Profession Scale was developed to collect data for the study. It consisted of twenty two (22) items and the five scale Likert rating scale of strongly disagree to strongly agree. The questionnaire was subjected to face and content validity evidence while Cronbach's alpha was used to determine the reliability coefficient of the questionnaire which gave a reliability coefficient value of .991. However, annual examination of class ten result from

the Boards of Intermediate and Secondary Education Peshawar (BISEP) was used to determine the academic achievement of the students. Specifically, the average score of the student's academic achievement. A thousand (1000) questionnaires were personally distributed to the respondents. Descriptive and Inferential statistical tools such as one sample t-test, Pearson correlation and regression were used for data analysis. These tools were used to test the hypotheses. Results showed that teachers' attitude towards profession positively contributes to students' academic achievement. It was concluded that teachers' attitude towards their profession was significant predictor of students' academic achievement. It was recommended on the basis of the findings that teachers should try as much as possible to develop the right attitude towards teaching for improved academic achievement of the students[44].

A closely identical study was carried out to investigate the role of teachers' attitude towards their profession in university students' academic performance and classroom environment. Students and teachers at the University of Sargodha made up the population of the study. These participants were selected from the Department of Psychology from faculty of social sciences, Department of Statistics from faculty of sciences and Department of Communication and Media Studies from faculty of arts and humanities at the university. Data were collected online. Attitude scale towards teaching profession and Classroom environment scale were used to gather data for the research. Perceptions of teachers were recorded using Classroom environment scale and Teachers' attitude scale, while student's academic performance was measured through self-reported CGPA. Data were analyzed using mediation analysis via Statistical Package for Social Science Software version 22. It was concluded based on the results of the study that the mediating role of teachers' attitude towards their profession in university Students' academic performance and classroom environment was statistically significant. It was

therefore recommended that students' academic achievement may be made better by focusing on creating classroom environment that is more structured and well designed; secondly, all hands must be on deck in ensuring that teachers have the right attitude towards their profession for improved academic performance of the students at the various departments in the university; also, future studies using qualitative research approach should be conducted[87].

A paper was carried out to investigate the impact of educator's attitudes on the academic performance of children in basic schools in the Hohoe Municipality. Teacher's attitude was estimated using the standard inventory which consists of seven particular components such as clarity, enthusiasm, interaction, organization, disclosure, speech, and rapport while academic performance of the children was estimated by their class score. Primary data was therefore used for teachers' attitude while secondary data was used for children's academic performance. By utilizing a stratified proportionate testing strategy, three hundred (300) students were chosen from structure basic institutions in Hohoe Municipality and a cross-sectional study was led to gauge the impact and to find the connection between factors. It was established from analysis that instructors' attitude has a significant association with the children's academic performance. Of the seven components used to measure teachers' attitude, it was revealed that five components (clarity, organization, disclosure, speech, and rapport) have a significant association with the children's academic performance while two components (enthusiasm and organization) have no association with the children's academic performance. However, a component (speech) was found to reveal distinction based on their (student's) sexual orientation[88].

Another similar study was investigated on the impact of teacher professional attitudes on student accomplishment in our secondary schools, particularly in Taraba State's Wukari Local Government. The study used descriptive survey statistics to test the

mean values of whether the influence of teacher profession improves teaching, method, and instructional materials. Three (3) research questions were developed to test the mean values of whether the influence of teacher profession enhances teaching, method, and instructional materials. The population of study consists of GDSS Wukari, MGGSS Wukari, Al -iman Wukari, GSS Wukari, and Great leaders' secondary schools Wukari, which offered science and art subjects, and one hundred and fifteen (115) students were brought from each school and random sampling techniques were used, fourteen (14) questionnaires were used, and structured content validation was performed using Cronbach' Alpha which was calculated to be 0.984. The mean value of 3.50 was accepted as the criteria. Using a five-point likert scale, the study indicated that a professional teacher may teach effectively by supplying items with good instructional materials, training, methods, and student achievement in Wukari, Taraba state which will improve via learning and listening to the teacher[89].

A study is conducted to find out the factor related to teacher which may contribute to the students` achievement in mathematics. A sample of six hundred and five (605) students were drawn from fourteen (14) departments of different educational institutions in Peshawar, Khyber Pakhtunkhwa. Furthermore, the data was collected from students' 5th semester academic records from the department of mathematics. Data gathered was subjected to statistical analysis using various statistical tools such as descriptive statistics (mean, standard deviation, frequency and percentages), t-test for independent sample, odd-ratio and binary logistic regression via Statistical Package for Social Science Software version 20. Findings revealed that teachers' attitude has a high significant impact on students' achievement in Mathematics. Findings also shows that teachers take interactive class, adopt positive attitude, use understandable language, motivate and provide teaching material contribute to students` academic achievement. It was

recommended that teachers continue to develop and sustain positive attitudes towards teaching for improved academic performance of the students[90].

A similar study investigated the influence of teachers' attitude towards practical chemistry on students' interest and achievement in senior secondary schools in Nasarawa State. The study adopted an ex post facto research design. The population of the study comprised of all Senior Secondary School Three (SSS3) students in all the public senior secondary schools in Nasarawa State, Nigeria. Four research questions guided the study and four null hypotheses were tested at 0.05 level of significance using t-test statistics. Instruments such as Practical Chemistry Achievement Test (PCAT), Practical Chemistry Interest Scale (PCIS) and Teachers' Attitude to Practical Chemistry Questionnaire (TAPCQ) were used for data collection. Kuder-Richardson twenty (KR-20) and Split-half reliability method were employed to determine the internal consistency of instrument, and their reliability indices were 0.972, 0.979 and 0.985 respectively. Multi-stage sampling technique was employed to select the sample. Simple percentage, mean, and standard deviation were used to answer the research questions, while the hypotheses were tested using t-test. The findings of the study revealed that teachers' attitude towards practical chemistry had significant influence on male students' interest in practical chemistry in Nasarawa State; that there was no significant influence in the interest of female students taught practical chemistry by teachers with positive attitude and those taught by teachers with negative attitude towards practical chemistry in Nasarawa State; there was on significant influence in the achievement of male and female students taught practical chemistry by teachers with positive attitude and their counterpart taught by teachers with negative attitude towards practical chemistry in Nasarawa State. It was recommended on the basis of the findings of the study that; in order to improve qualification of chemistry practicals, the numbers of learners in chemistry classrooms need to be reduced. This

could be done by separating large classes into many small classes. This implies that more chemistry teachers be employed, more classrooms and laboratories built and equipped, an action which can be addressed by the ministry of education; also, for chemistry practicals to result in a significant positive impact on a students' ability to learn both the desired practical skills and also the underlying theory, it is recommended that; male and female students should be encouraged to cooperatively learn as it will help to maintain and increase their positive attitude and interest towards chemistry practicals in secondary schools[91].

A similar study was investigated on the influence of teachers' attitude and that of the students on the academic achievement of student in basic science in secondary schools in Rivers State. The study adopted a survey research design to investigate whether the synergy of parents and students attitudes toward science subjects play a significant role in the achievement of the students in basic sciences. The population of the study comprised of all the students in all the secondary schools in the state. Two hundred (200) students were selected as the active participants through the stratified random sampling techniques. Three research questions guided the study while three null hypotheses were formulated and tested at 0.05 levels of significance. The study used self-structured instrument titled, Teachers/Students Science Attitude and Academic Achievement Questionnaires (TSAAAQ) for collection of data. The instrument was validated and the reliability of the instrument was tested using the Cronbach alpha coefficient. The result revealed that the major factors affecting students' attitude towards science are categorized; positive and negative. The positive include interest; relevance; and the entrepreneurial skills while the negative included boredom and difficulties in the calculation involved. Furthermore, the study showed that teacher's attitude plays significant roles in the students' attitude towards basic science. The study also showed

that there is a significant relationship between teacher's attitudes and student attitude towards science and a significant relationship between teacher's attitude and students' academic achievement[92].

An identical study was examined on the influence teachers' attitude on student's performance at grade six. A descriptive survey research design was employed. The sample of the study included eight (8) students and six (6) teachers of Government Girls high school attached with Government Elementary College of education (women) Hyderabad. The observational tool was used in preliminary visit for identification of students' learning understanding. The researcher conducted the observation on checklist tool in order to find out the problems students face from teachers' attitude. Then also use other tool that helps researcher to analyze the reasons behind teachers' or student attitude that are affecting student's performance. It was revealed that teachers' attitude negatively affects students' academic performance in grade six and they face problems of poor academic performance as a result of their teachers' negative attitude in the study area[93].

An identical study was examined on teachers' attitudes towards the teaching of basic science and technology and students' achievement in the subject at junior secondary school three in Ibadan metropolis, Oyo state. The study adopted a descriptive survey method. Data were collected from forty (40) basic science and technology teachers and one thousand, six hundred (1,600) students. These students included one thousand and sixty (1,060) from Ibadan city and the remaining five hundred and forty (540) from Ibadan less city. Questionnaires and achievement tests were the instruments that were used to obtain data for the study. The data collected were subjected to descriptive statistics and inferential statistics such as mean, standard deviation, frequency and percentages and Pearson Product Moment Correlation (PPMC). Three research questions and (3) hypotheses were formulated. The hypotheses were tested at 0.05 level of

significance. The findings showed a positive disposition towards basic science and technology teaching and a significantly positive correlation between teachers' attitudes and students' achievement in basic science and technology. It was recommended that the government and all those concerned with education in the country should get more committed and invest more funds, time, and energy towards making teaching especially science and technology more attractive to teachers[94].

A related study was carried out on the relationship between teachers' attitude and students' academic achievement in college level. A quasi experimental design was adopted to carry out the study. The data were collected from instruments such as questionnaires and achievement test. Data gathered were analyzed using descriptive and inferential statistics such as mean, standard deviation, independent samples t-test, analysis of variance (ANOVA) and Pearson Product moment correlation. The inferential statistics were used to test the two hypotheses that were formulated. The findings showed that the attitude of teachers in the study at the college level has a significant effect on the achievement of students in science subject. The implication of the finding was that if teachers show positive attitude towards the teaching, the achievement of students will be better than what is present currently at the colleges. It was therefore recommended that teachers should try as much as possible in developing the right attitude towards teaching for improved academic achievement[95].

A similar study was examined on teachers' attitudes and motivation as correlate of pupils' achievement. Two hypotheses were tested. Descriptive survey research design of the correlational type was employed to carry out the study. The simple random sampling technique was employed to select eighty (80) teachers and eighty (80) pupils. Two validated self-designed instruments were used to collect data namely: "Teachers' Attitude and Motivation Questionnaire" and "Pupils' Achievement Test. Data collected were

analysed using inferential statistics of Pearson Product Moment Correlation (PPMC). Findings showed that a positive significant relationship exists between teachers' attitudes and pupils' achievement in the study area[96].

A closely similar study was aimed at determining relationship between teachers' attitude and students' academic achievement at secondary level using quantitative research approach. The population of the study comprised of four hundred and thirty six (436) public secondary boys' school teachers. Two hundred and ten (210) teachers were purposively selected for the study as sample. Teachers' Attitude Index (TAI) was employed as research instrument for the study. Students' achievement scores were obtained from the class nine annual examination 2017 results of the Boards of Intermediate and Secondary Education Peshawar. Descriptive statistics such as Frequency, Percentage, Mean, Standard Deviation, and Rank Order correlation were calculated. Inferential statistics such as one sample t-test, Pearson product movement coefficient of correlation and regression were used for testing of hypotheses and for determining the relationship between variables. The data was analysed using Microsoft Excel professional and IBM SPSS statistics. The study confirmed that Teachers' Attitude is significantly correlated with Students' Achievement[97].

An identical research was aimed at finding out the correlation between teachers' friendly attitude and students' speaking achievement. The sample of the research was thirty five (35) class eight students of SMPT Madinatul Ulum Cangkring Kecamatan Jenggawah, Jember. The research was a correlational research which was used to find out the correlation between two variables. Teachers' friendly attitude and students' speaking achievement was the instrument used for data collection. The statistical description of the two variables was conducted before calculating the score into Pearson product moment formula. Based on the data analysis, it was found that there is a positive correlation

between teachers' friendly attitude and students' speaking achievement. The correlation indicated a high-strong correlation between the two variables[98].

A similar study was designed to find out the effect of science teachers' attitudes on the academic performance of secondary graders. The study was quantitative in nature and employed a causal comparative research design. Questionnaire was used as instrument for data collection. The questionnaire used to measure the attitude of teachers, while academic achievement was determined from the result of BISE. The data collection tool was validated by experts to check its validation, while the reliability of the tool was ensured by piloting it on eighty (80) students. The reliability coefficient of the questionnaire gave a reliability value 0.983 using Cronbach's alpha. Seven hundred (700) teachers were sampled from the total population by using purposive sampling and a questionnaire was administered to them personally and the use of research assistants. The results of the data show that the attitude of teachers are varied across different factors[99].

Another similar study was evaluated on teachers' attitude and competence towards implementation of continuous assessment among adolescents in Ifako-Ijaye local government area of Lagos State. The study was a correlational type. The population for the study consisted of all adolescents in Senior Secondary School Two (SSS2) in Ifako-Ijaiye LGA. Muiti-stage sampling techniques was employed to select four schools and two hundred and forty (240) participants comprising of male and female respondents. A self-developed questionnaire titled – "Teachers' Attitude and Competence Towards Implementation of Continuous Assessment Questionnaire (TACTICAQ)" was employed as instrument for data collection. The instrument gave a reliability coefficient of 0.874 when tested during the pilot study via Cronbach's alpha. Four (4) research questions and hypotheses were formulated to guide the study. The hypotheses were tested at 0.05 level of significance. Results from the study revealed that teachers' competence and attitude

towards continuous assessment does not significantly impact on the implementation of continuous assessment in the study area. It was therefore recommended on the basis of the findings among others that the school authorities should organize meetings and capacity building workshops which should be geared towards improving teachers' skills and the expected attitude towards continuous assessment[100].

A paper was examined on attitude as attribute of integrated science teachers that influence performance of pupils in integrated science at the junior secondary schools in Sierra Leone. A descriptive research type of a survey design was adopted for the study. The population of the study comprised of all the junior secondary schools that are purely boys, purely girls and mixed sex schools, integrated science teachers and integrated science heads of department. A sample size of hundred (100) Junior Secondary Schools were selected using stratified random sampling technique. The participants included hundred (100) Heads of Departments, two hundred (200) integrated science teachers and one thousand (1,000) pupils making a total of one thousand, three hundred (1, 300) participants for the study. These participants were selected using purposive sampling technique. Questionnaire was the main research instrument employed for the study. The questionnaire was subjected to face and content validity evidence while Cronbach's alpha was used to determine the reliability coefficient of the questionnaire which gave a reliability coefficient value of .801. Data collected were analysed using frequency count and percentages through Statistical Package of Social Sciences software. The results obtained were displayed on tables and bar charts. The findings of the study revealed that integrated science teachers' attitude has a lot of influence in the academic performance of pupils at BECE. Based on the findings, it was recommended that teachers should be encouraged and motivated to acquire higher qualification by the government and that the Ministry of Education should organize in-service training for all integrated science

teachers. Finally, it was also recommended that integrated science teachers should develop positive attitude towards teaching integrated science[101].

A closely similar study was carried out to ascertain science teachers' attitude towards science teaching in senior secondary schools in Oyo State, Nigeria. It was a descriptive research of the survey type in which simple random sampling technique was employed to select one hundred and eighty (180) science teachers. An adapted questionnaire was the instrument for data collection. The questionnaire was subjected to content validation and reliability analysis. A reliability index of 0.909 was obtained using the test-re-test method via Pearson Product Correlation Coefficient (PPMC). The data collected were analyzed using descriptive and inferential statistics like frequency counts, percentages, student's t-test. These were used to answer the research questions and also test the hypotheses. The main finding of the study showed that science teachers generally had positive attitude towards science teaching. Based on the findings of the study, it was recommended that science teachers should regularly develop positive attitude towards the teaching of science subject since they are role models to the students; they should also be well catered by ensuring that government pay them their salaries and allowances on time; and they should be encouraged to motivate others in science teaching and learning exercises. Furthermore, it was recommended that science teachers should seek for knowledge in other areas to update their own area for the better performance of the students. Both male and female science teachers should be given equal exposure and opportunities for science teaching[102].

2.3.2.3 Teachers' Teaching Experience and Students' Academic Achievement in Economics

A research work was undertaken to find out the influence of teachers' teaching experience on students' poor academic performance in Biology in Zaria educational zone of Kaduna State, Nigeria. It was a survey research work and population for the study

consisted of all the Science Teachers in Secondary Schools in Zaria Educational Zone where students' performance was obtained from school records. The sample of the population was achieved by simple random (paper ballot) method. The instrument used for data collection was a questionnaire. Two Hypothesis were put forward and tested using Pearson Product Moment Correlation (PPMC). Findings from the study showed that there is relationship between Teachers teaching experience and students' academic performance in Biology. Based on the findings, it was recommended that teachers who are well experienced should be employed for improved academic performance of the students in Biology in Zaria educational zone of Kaduna State, Nigeria[33].

A study was examined on the influence of teachers' teaching experience on academic performance of students in public secondary schools in Ekiti State, Nigeria. The purpose of the research was to find out the relationship between teachers' teaching experience, educational qualification and academic performance of students in public secondary schools. The descriptive research of the survey type was employed for the study. The study revealed that there is a significant relationship between teachers' teaching experience and academic performance of students. The study therefore showed that teaching experience had influence on academic performance of students. It was therefore recommended on the basis of the findings that teachers who are experienced should be employed so as to help improve the academic performance of the students[47].

A similar study was explored on the influence between teachers' experience and school academic performance in Kisii Central Sub-County, Kisii County, Kenya. The study was carried out in Kisii central Sub-County which has sixty one (61) public Secondary schools and thirteen (13) private secondary schools. The study utilized mixed methods approach and concurrent triangulation design where qualitative data utilized an Ex post facto design while qualitative used correlational research design, then the two

types of data were triangulated within the same time frame. The target population was nine hundred and sixty five (965) respondents comprised of all the eight hundred and eighty eight (888) Secondary school teachers and principals in the sixty one (61) public secondary schools and thirteen (13) private schools in Kisii central Sub-County. The study used a sample size of one hundred and ninety five (195) respondents which included fourteen (14) principals, three (3) Area Education Officers and one hundred and seventy eight (178) teachers using the central theorem. Data was collected through questionnaires, interview guide and document analysis. The instruments were piloted in ten (10) randomly selected secondary schools in the neighbouring Kitutu Chache Sub-County. The instruments validation exercise was done by the supervisors. A test- re-test reliability technique was employed to determine the reliability of the instruments where a coefficient of 0.976 was established. Descriptive statistics and inferential statistics were used to analyze data. Data was then presented through tables while bivariate analysis using Pearson Product Moment Correlation Coefficient to test if there was any relationship between teacher dynamics and student academic performance respectively. The findings of the study revealed that Teacher's experience, teacher's preparedness and teacher professional development positively and significantly influence academic performance of the learners/schools. It was therefore recommended on the basis of the findings that teachers who are experienced should be given due consideration during recruitment exercises for improved academic performance of the students[103].

A closely similar study was carried out to determine the influence of teacher (teaching) experience on pupils' performance in KCPE examination in English subject in Kenya. The study used descriptive research design and purposive sampling as its method for research. The unit of analysis included teachers from public primary schools in Machakos County. The respondents were Primary school teachers who teach English

subject in KCPE examination classes in Kenya. The sample size consisted of one hundred and thirty two (132) teachers with teaching experience of between one and thirty one (31) years. Data collection was done through questionnaires. Results of the study showed gradual increase in candidates' performance at Kenya Certificate of Primary Examination in English subject in Kenya which corresponded to teachers' teaching experience of four (4) years to a maximum. The study also found that there was gradual decrease in candidates' performance at Kenya Certificate of Primary Examination in English subject in Kenya which corresponded to teachers' teaching experience of twenty (20) years and above. Candidates taught by teachers with teaching experience of twenty (20) years achieved a higher academic performance. It was therefore concluded on the basis of the findings that teachers' teaching experience significantly influences pupils' performance at Kenya Certificate of Primary Examination in English subject in Kenya. Furthermore it was revealed that the influence is moderated by other factors such as age and work environment. It was recommended on the basis of the findings of the study that to enhance pupils' performance at Kenya Certificate of Primary Examination in English subject, the following should be done - (1) Highly experienced teachers should be promoted to higher responsibilities in order to boost their morale for the purpose of enhancing their classroom performance; (2) Teachers' teaching experience should be developed through teachers' exchange programmes and skills development trainings especially during school vacation or school breaks; (3) The morale of experienced teachers especially those who are high performers should be sustained by improving their terms of service like remuneration and timely promotion of those who deserve it; (4) Mentoring programmes in schools should be institutionalized in order to hasten transfer of experiential knowledge and skills from more experienced teachers to less experienced teachers; and (5) lastly, teacher-administration work relations, school resources and

related physical infrastructure should be improved upon to ensure that experienced teachers carry out their duties well with all level of comfort, ease, satisfaction and commitment[104].

A similar research work was investigated on the effect of teacher's teaching experience on the academic performance of secondary school students in Science, Technology, Engineering and Mathematics (STEM) in the three senatorial zones of Benue State, Nigeria. The study employed a descriptive research design. A sample of three hundred (300) including students and teachers were randomly drawn from one hundred and fifty (150) secondary schools, fifty (50) schools from each senatorial district through the process of simple random sampling technique. An inventory schedule was the instrument used for data collection. Three hundred (300) questionnaires, two questionnaires per school were administered. About two hundred and seventy eight (278) questionnaires were returned which made a return rate of 92.67%. The responses of the sampled respondents were analyzed through content analysis. Findings revealed that teachers' teaching experience significantly influenced students' academic performance in SSCE examinations and as perceived by the respondents. Schools having more teachers with above 10 years teaching experience achieved better results than schools having more teachers with 10 years and below teaching experience. The result also showed that perception rather than skills is the major impediment on the side of students and teachers in improving the study of STEM related subjects. It was recommended that all relevant stakeholders including parents, teachers and students should embrace and combine informative and persuasive efforts to tackle the challenges of STEM education through innovations for the benefit of the state to enhance technological development[105].

A research work was carried to examine teachers' teaching experience and secondary schools' performance in science subjects in Ondo state, Nigeria. The study

specifically examined how teachers are distributed on the basis of teaching experience in the selected public secondary schools in Ondo state. The study also examined the influence of Biology, Chemistry and Physics teachers' years of experience on students' performance. The descriptive research design of the survey type and ex-post facto were adopted in the study. The population for the study consisted of all one thousand, eight hundred and five (1,805) science teachers in public secondary schools in Ondo state. The sample for the study was one hundred and eighty (180) science teachers selected in Ondo State using multistage sampling procedure. The instruments that were used for the study are inventories. The first instrument was an inventory which sought for the teaching years of experience and science subject taught. The second instrument was an inventory on Senior Secondary School Certificate Examination results. The responses obtained were collated and analysed using descriptive statistics while the hypotheses were subjected to inferential statistics of Univariate analysis of Variance at 0.05 level of significance. The findings revealed that the performance of students in Biology was not determined by teachers' experience in public secondary schools in Ondo State but their performance in Chemistry and Physics were determined by teachers' experience. It was recommended among others that Government should make sure teachers with required experience are allowed to teach science subjects in schools as this would go a long way in improving the performances of the students' in external examinations[106].

A closely identical study was investigated on teachers' experience as determinants of students' academic performance in science subjects in Uganda certificate of education examinations in Buikwe district, Uganda. This study was prompted by the overall poor performance of students in science subjects in Buikwe district which has been below average. The low achievement and abysmal performance of students in the Science examinations has been a cause of worry and concern to educational stakeholders hence

the need for the study. The study was guided by Convergent parallel mixed methods design specifically a cross-sectional survey and phenomenological survey. The target population included all head teachers, head of departments, science teachers, students in public and private secondary schools, and all Secondary Science and Mathematics regional trainers in Buikwe district. Both Probability and non-probability sampling were used. Simple random sampling was employed to select one hundred and ten (110) Science teachers, three hundred and seventy five (375) students were selected using cluster random sampling while twenty eight (28) head teachers were selected through census purposive sampling and expert sampling was employed to select regional trainers. Data was collected using questionnaires, interview, focused group discussions and document analysis guide and were subjected to both content and face validity. Cronbach's alpha technique determined reliability of quantitative instruments. Quantitative data were analyzed using SPSS version 23 for descriptive and inferential statistics. Frequencies and percentages were used to summarize data while Chi-square test for associations was employed to test hypotheses. The qualitative data were subjected to thematic analysis and findings presented in narrative form. The key findings indicated that there was a significant relationship between teacher experience and students' academic performance in science subjects. The study found out that science teachers who teach on a part-time basis have little time for students. Teaching experience of the students in the schools also contributed to poor academic performance among the students. It was recommended that the ministry of education in Uganda needs to organize seminars and equip science teachers with the required skills to teach science subjects. The government needs to abolish part time teaching and invest in building a robust school inspection system and improve teachers' experience and quality of teaching through staff development[107].

Another similar investigation was carried out on the effect of years of experience and educational qualification on music teachers' motivation and performance of students in Secondary Schools in South-South Nigeria. The study adopted a descriptive design method. The study was conducted in South-South geopolitical zone. The population of the study consisted of all the music teachers in public post primary schools in the four states in South-South Nigeria. The sampling technique was employed in selecting one hundred and fifty (150) music teachers from Urban and Rural settings in the four states in South-South Nigeria. The main instrument used for the study was a questionnaire titled "Years of Experience and Education Qualification and Music Teachers' Motivation Questionnaire (YEEQMTMQ)". Reliability of the instrument deals with the extent to which the result accruing from an instrument is stable and consistent. The researcher conducted the administration of the questionnaire to all the one hundred and fifty (150) music teachers selected for the study. Data gathered in the study through the use of questionnaire (LMIGMTSSQ), was analyzed using inferential statistics. The study concluded that the level of music teachers' motivation and Secondary School students' performance in music in South-South Nigeria is significantly affected by their level of years of experience and the higher the level of educational qualification of music teachers, the higher their level of motivation and Secondary School students' performance and vice versa. It was recommended on the basis of the findings that the government should create funds to establish good working environment to enable schools provide the necessary incentives such as professional allowances for music teachers and also provision of working equipment, such as musical instruments and books to increase job satisfaction[108].

A related research work was implemented to determine the influence of Biology teachers' experience on academic performance of students in senior secondary schools in South-West Geopolitical zone, Nigeria. It was a descriptive research of the survey type in

which simple random sampling technique was employed to select one hundred and two (102) senior secondary schools in South-West zone, Nigeria. Two hundred and four (204) Biology teachers were involved in the study. The data collected were analyzed using frequency count, percentages and t-test. These were used to answer the research questions and also test the hypotheses. The findings of the study showed that Biology teachers generally had positive influence on academic performance of students while there was no significant difference based on gender and years of teaching experience. It was recommended that the adequate instructional materials should be made available for Biology teachers to further enhance their positive influence on the students' academic performance. Both male and female science teachers should be encouraged by provision of special incentive for improvement on their influence on students' academic performance. Both less experienced and experienced Biology teachers should be encouraged to acquire more professional experience in order to improve more on their influence to students' academic performance[109].

A closely identical study was investigated on the relationship between teachers teaching experience, attitude, classroom interaction pattern and student's academic achievement of science students in public secondary secondary schools in Ebonyi State. This research adopted the expost facto research design. The population for the study consisted of teachers teaching science in senior secondary classes. A sample of hundred (100) secondary schools were chosen for the study using stratified random sampling technique, the basis of stratification being the three (3) senatorial zones of the state. Thirty three (33) public schools were selected from Ebonyi south and Ebonyi north and thirty four (34) from Ebonyi central. Three instruments were used to collect data. They are - The FIAC, the science teachers' variable questionnaire (STVQ) and science subject achievement test (SSAT). The hypothesis was posited for the study and was analyzed

using 0.05 alpha level of significant. Hypothesis one was tested using one way analysis of variance and Pearson product moment correlation was employed to test hypothesis two and three respectively. The results showed a significant relationship between teachers' teaching experience and students' academic achievement; no significant relation between teachers' attitude and their classroom interaction pattern. Findings revealed that teaching experience has a lot to do with classroom interaction pattern which is positively related to students' academic achievement and not science teachers' attitude has no relationship with their classroom interaction pattern. This paper concluded that most teachers use direct teaching method whereas some science subjects' curriculum content requires both direct and indirect teaching method. Nevertheless, science teachers should use more of indirect teaching methods because science is an activity based subject[110].

2.3.2.4 Teachers' Educational Qualification and Students' Academic Achievement in Economics

A study was examined on the influence of teacher's academic qualifications, gender and teaching experience on students' academic performance of Senior Secondary school Students in Biology. The area of the study was Ido local government area of Oyo state. A case study of ten secondary schools formed the research design. Sample consisted of twenty (20) teachers and two hundred (200) Senior Secondary School two Biology students. Random sampling technique was employed to select ten schools from the study area. Teacher's academic qualifications, gender, teaching experience and the Senior Secondary School two student's first term result formed the data for the study. The data were subjected to descriptive and inferential statistics such a mean, standard deviation, simple percentage, frequency, ANOVA and multiple regression. Four null hypotheses were tested in the study at 0.05 level of significance. The findings of the research showed that there is a great significant influence of the teachers' academic qualifications on student's academic performance. Since teachers professional qualification and gender

significantly influence students' academic performance in Biology, the government and all stakeholders in education sector should endeavour to implement its policy on basic education for all, retain qualified teachers through better conditions of service, fund education through provision of teaching aids and thus, create an enlightened society in which every Biology teacher would be educated, experienced and competent enough to have a positive influence on their Biology students for better performance in the subject[28].

A research work was undertaken to find out the influence of teachers' qualification on students' poor academic performance in Biology in Zaria educational zone of Kaduna State, Nigeria. It was a survey research work and population for the study consisted of all the Science Teachers in Secondary Schools in Zaria Educational Zone where students' performance was obtained from school records. The sample of the population was achieved by simple random (paper ballot) method. The instrument used for data collection was a questionnaire. Two Hypothesis were put forward and tested using Pearson Product Moment Correlation (PPMC). Findings from the study showed that there is relationship between Teachers qualification and students' academic performance in Biology. Based on the findings, it was recommended that teachers should be encouraged to attend Workshop and conferences and they should also be encouraged to further their education[33].

Another identical study was investigated on the perceived influence of teacher's qualification on students' academic performance in public senior secondary schools in Port Harcourt Metropolis, using three research questions and three hypotheses. The study adopted descriptive survey design. The population of the study was eleven thousand three hundred and sixty-four (11,364) SS2 students from the thirty-five (35) public senior secondary schools in Port Harcourt and Obio/Akpor Local Government Areas of Rivers State. A sample of five hundred and six (506) male and six hundred and thirty one (631)

female students totalling one thousand, one hundred and thirty seven (1,137) students was obtained for the study through stratified and purposive sampling techniques. The instrument for the study was a self-designed questionnaire titled: "Perceived Influence of Teacher Qualification on Students' Academic Performance Questionnaire (PITQSAPQ)" which was validated by experts, while the Cronbach Alpha was employed to achieve reliability index of 0.987, 0.993 and 0.987 for the various sections of the questionnaire. Mean and standard deviation were used to answer the research questions while the z-test was employed to test the hypotheses at 0.05 level of significance. Findings revealed that teachers' qualification, pedagogical skills and communication skills have positive influence on students' academic performance in public senior secondary schools in Port Harcourt Metropolis of Rivers State. Based on the findings, it was recommended among others that the government of Rivers State should employ only trained and qualified teachers in the public secondary schools in Rivers State, to enhance students' academic performance[46].

Another study was undertaken to determine the degree to which teachers' academic qualification predicts students' attitude and academic achievement in Geography in senior secondary schools of Adamawa State. The research design employed was the predictive correlational design. The study, which sampled four hundred (400) teachers and four hundred (400) students from senior secondary schools in Adamawa State, employed the multistage sampling technique to actualize this. The participating teachers' and students' responses were gathered using the Geography Teachers' Qualification Checklist (GTQC), Students' Attitudinal Scale in Geography (SASIG) and Geography Achievement Test (GAT). Two of the instruments (SASIG, GAT) were validated and trial-tested to obtain the reliability coefficients using Cronbach's Alpha statistic. The SASIG instrument had a reliability coefficient of 0.878 while the GAT

instrument indicated a coefficient of 0.977. Frequency count and percentages were used to answer the lone question in the study while the null hypotheses were tested using simple linear regression statistic. The regression statistic showed that teachers' qualifications did predict students' academic achievement and the predictive value was significant. However, students' attitude to Geography was not predicted by teachers' qualification. These results emphasized the need for authorities concerned to strictly recruit qualified graduate teachers of Geography to teach in senior secondary schools in Adamawa State[49].

A similar study was examined on the influence of teachers' qualification on junior secondary school students' academic performance in Mathematics in Ekiti State, Nigeria. In the study, the descriptive type of survey design was employed to obtain information about the subjects. The study covered six schools in the Local Government. A sample of one hundred students and twenty teachers were selected as sample for the study and questionnaires were administered to them. Inferential statistics such as t-test statistics was employed to analyze the responses of the respondents. Findings from the study revealed that: there is a significant difference in the performance of students in Mathematics between those taught by NCE teachers and B.Sc. Ed. teachers; there is significant difference in the performance of students taught by B.Sc and B.Sc. Ed. Teachers in Mathematics and there is a significant difference in performance of students taught by professional and nonprofessional teachers in Mathematics. Based on the findings of the study, it was recommended that trained teachers with high qualification should teach Mathematics at JSS III class so that the students can be adequately prepared for Junior Secondary School Certificate Examination; Teachers should be motivated to participate actively in in-service training programmes and workshops to update their knowledge and

pedagogical skills; and Mathematics teachers with low qualification level should be encouraged to undergo higher study through part time study or study leave[50].

Another similar study was aimed at investigating the relationship between teachers' qualification, and students' academic achievement in Yewa South Local Government Area (YSLGA) of Ogun State. A cumulative total of two thousand, five hundred and fifty (2,550) respondents including fifteen (15) subject teachers from the senior secondary and the heads per school in fifteen (15) schools covering ten (10) wards were selected. The respondents were selected from fifteen (15) randomly selected public and private senior secondary schools in YSLGA, Ogun State, Nigeria between the year 2016 and 2018. Two researcher-designed instruments, namely; Teachers' Qualification Assessment Questionnaire (TQAQ), and Students' Academic Performance Proforma (SAPP), were used to collect relevant data for the study. The instruments were validated by some experts in Educational Management, Measurement, Evaluation and Statistics. The coefficients of reliability of Teachers' Qualification Assessment Questionnaire (TQAQ) after a two-week test-retest were found to be 0.783. Eighteen research questions and hypotheses were formulated and tested. Means, Weighted means, frequency and Percentage were used to answer the research questions raised. Regression analysis was employed to test the main hypothesis. In addition, Pearson Product Moment Correlation Statistical Method was employed to test the operational hypotheses at 0.05 significance level using Microsoft Excel and Statistical Package for Social Science statistical tools. Findings showed that the correlation between Teachers' Qualification and Students' Academic Achievement was found to be positively strong. At 0.05 level of confidence, the regression analysis showed a significant relationship between Teachers' Qualification and Students' Academic Achievement. This finding showed that teachers' qualification strongly influenced students' academic achievement. It was recommended on the basis of

the study that school proprietors and the government through the inspectorate division must routinely visit schools to ensure that teachers who are qualified are employed and are also properly discharging their primary assignment in the area of instruction in order to enhance students' academic achievement[111].

An identical study was examined on the impact of teachers' qualification on academic performance among public senior secondary schools, Maiduguri Metropolis, Borno State. Two (2) objectives and two (2) null hypotheses were used for the study. Correlational design was employed for the study. The total population of the study consisted of one thousand, two hundred and thirty six (1,236) teachers and ten thousand, three hundred and forty nine (10,349) students out of which three hundred and seventy one (371) teachers and three thousand, one hundred and five (3,105) students were sampled through simple random sampling. Senior Secondary Certificate Examination (SSCE) results for five consecutive years (2014-2018) were obtained for the study. Questionnaire and Pro-forma were used for data collection. The questionnaire was subjected to face and content validity evidence and Cronbach's alpha reliability of which a reliability coefficient index of 0.874 was obtained. Data collected were analyzed using Pearson Product Moment Correlation Coefficient (PPMCC) at 0.05 level of significance. The results of the study revealed a significant impact of teachers' qualification on students' academic performance. Based on the findings, it was recommended that ministry of education should organize workshops and seminars to re-train teachers in senior secondary schools in Borno State; Teaching Service Board should ensure that qualified and well trained teachers are recruited in the schools in Borno state so as to enhance academic achievement of students[112].

A closely related study was carried out to establish the influence of teachers' knowledge competency on pupils' academic achievement. The study employed survey

research design. The study was conceptualized on principles of high-qualification teaching and learning. Study Population comprised three thousand, two hundred and ninety (3,290) teachers, six hundred and fifty eight (658) head teachers, seven (7) assurance officers and seven (7) directors. A sample size determination table was employed to select sample of two hundred and ninety four (294) teachers and two hundred and three (203) head teachers. Study sample were selected by stratified, random and purposive sampling. Samples selected comprised of two hundred and ninety four (294) teachers and two hundred and three (203) head teachers, seven (7) assurance officers and seven (7) directors. Informed consent, confidentiality of respondents was observed and data collected at work place. Data was collected using questionnaire, interview schedule and observation checklist. Validity was ensured by comprehensively including all the study variables after which they were presented for assessment to the specialists in Curriculum and Instruction in Kisii University. Reliability of the instruments was determined by test-re-test method. Correlation coefficient of teachers' questionnaire, Head teachers' questionnaire, QASOs interview schedule, ADDTMs interview schedule and teachers' observation checklist yielded 0.975, 0.971, 0.973, 0.974 and 0.877 respectively. Level of significance was set at 0.05. Data was analyzed using quantitative and qualitative techniques. Quantitative data was sorted, coded and processed using SPSS version 20 to generate frequencies and percentages. Hypotheses were tested using Pearson's Product Moment Correlations and Multiple Linear Regressions to establish presence or absence of correlations and association. Qualitative data were sorted into themes and sub-themes, analyzed in an on-going process then reported in prose. Results revealed that teachers' qualification and teaching skills and assessment competencies had statistically significant relationship with pupils' academic achievement. It was recommended that teachers' quality be enhanced through in-service courses;

review tests and measurements in professional studies and continuous education for improved academic achievement of the students[113].

A similar study was investigated on the effects of teachers' academic qualification and experience on students' achievement and interest in Accounting. The sample was made up of two hundred and twenty (220) NCE II, Business Education Department, Federal College of Education, Zaria and ten (10) Accounting lecturers in the Department. One hundred and forty (140) students of NCE II in Business Education Department and seven (7) Accounting lecturers were selected from Business Education Department, using random sampling technique. Two research hypotheses guided the study. The research hypotheses were tested using regression analysis and ANOVA. The findings from the study revealed that all lecturers' academic qualification and experience when taken together made significant effects on students' achievement in Accounting[114].

A similar study was implemented to investigate the influence of teachers' qualifications and experience on students' academic performance in basic science in junior secondary schools in Nigeria. The study was a descriptive survey type of research. Simple random sampling was employed to select eight Junior Secondary Schools (J.S.S.) in the Ogun East senatorial district of Ogun State. This included eighteen (18) basic science teachers and five hundred and forty (540) junior secondary school students. The data were collected using a questionnaire and a basic science achievement test. The data collected were analyzed using descriptive statistics, one-way analysis of variance and Pearson Product-Moment Correlation. The findings of the study revealed that most of the basic science teachers at the J.S.S. level were not trained as basic science teachers; science teachers' qualifications influenced students' academic performance in basic science; and basic science teachers' years of teaching experience did not have a positive

correlation with students' academic performance in basic science. It was recommended that teaches should try as much as possible to improve on their qualification[115].

A closely related study was carried out to examine the influence of biology teachers' qualification on students' achievement in Misau local government area of Bauchi state. Expostfactor research design was employed and the population comprises seven thousand, eight hundred and thirty six (7,836) students and twenty (20) biology teachers. A sample of three hundred and sixty seven (367) SSII biology students were used. Also, twelve (12) biology teachers in all the five senior secondary schools were purposively sampled from Misau local government area of Bauchi state. One question guided the study and one hypothesis was tested at 0.05 alpha level. The study found out that biology teachers' qualification had significant influence on students' achievement in biology. The study therefore recommended that teachers should improve on their academic qualification; government and other education stake holders should ensure that they set an optimum standard in terms of qualification for teachers who are to teach biology in senior secondary schools. Also, government should encourage in service training on courses that can improve biology teachers' educational qualifications[116].

A similar research work was done to ascertain the influence of teachers' qualification on students' academic performance in secondary school in Delta State. A random sampling technique was employed to select twenty five (25) public secondary schools out of twenty five (25) Local Government Areas of Delta State. A total of three hundrd and sixty four (364) samples comprising of teachers, students and secondary school principals were used during the study. A survey design was adopted for the study. Three researcher – made instruments namely - School Principal Questionnaire (SPQ), Teachers Qualifications Questionnaire (TCQ) and Students' Achievement Test (CAT) were used to gather data for the study. Data were analyzed using the Pearson Product

Moment Correlation (PPMC) and t-test. Results revealed that there is significant relationship between teachers' Qualification and students' academic performance in secondary schools. Secondary schools students taught by qualified teachers performed significantly better than those taught by unqualified teachers. Also secondary schools students taught by experienced teachers performed significantly better than those taught by inexperienced teachers. Recommendations were made on how to promote further development of secondary schools teachers in Nigeria[117].

An identical research work was done to examine the effect of teachers' qualification on the academic performance of Senior Secondary School Students in physics. The area for the study was Suleja Local Government Area of Niger State. The study applied ex-post-facto survey research design. Random sampling was employed to select six (6) schools in Suleja Local Government Area of Niger State. The SS II student's 2020/2021 academic session result formed the data which was analyzed using simple percentage and t-test statistic. Three research questions were answered and the findings of the research showed that academic achievement of Senior Secondary School students in Physics subject was dependent on the teachers' qualification and experience. It was recommended that there should be organization for more regular trainings for teachers and in-service and refreshers training of Physics teachers to enable them embrace and conform to the emerging technologies in pedagogy and more so, unqualified teachers should be given room to pursue postgraduate diploma in Education to get them qualified; and counseling services should be made available to teachers so as to boost their professional quest and development. Also, students should be enlightened on the relevance of Physics and be adequately motivated to have a positive attitude towards the subject[118].

A study was examined on the impact of Biology teachers' educational qualification on the academic achievement of senior secondary students of public secondary schools in Bayelsa State, Nigeria. Teachers' educational qualification was measured in terms of their quality, skills and knowledge in the teaching of biology. A descriptive survey research design was employed to carry out the study. A sample size of seven hundred and forty four (744) participants comprising of thirty five (35) Biology teachers and seven hundred and nine (709) students offering Biology in the senior secondary schools was selected by simple random and purposive sampling techniques. Biology Achievement Test (BAT) and Teacher's Qualification and Experience Questionnaire (TQEQ) were the instruments of data collection. The instruments were tested and certified to be reliable at 0.973 coefficients. Data collected was analysed using descriptive and inferential statistical tools such as frequency counts, percentages, mean, standard deviation and F-test. Means arising from significant analysis of variance (F-test) were separated using Tukey's Highly Significant Difference (Tukey HSD) test. Findings showed teachers' qualification routes significantly influenced students' achievement rate and achievement test scores of the students in biology. It was also revealed that qualified teachers impacted students' academic achievement more than traditionally qualified teachers. It was therefore concluded that students' academic achievement rate is predicted by teachers' educational qualification as underscored in the study. On the basis of the findings, it was recommended that the educational policy be revised such that traditionally trained education graduates, in addition to acquisition of pedagogical skills, would have an appreciable depth of knowledge in their subject areas commensurate to their non-educated counterpart[119].

A similar research work was carried out to examine the effects of teachers' academic qualification on students' achievement and interest in mathematics. The sample

was made up of two hundred and twenty (220) senior secondary school two students and fifty (50) mathematics teachers from two (2) secondary schools in Jega education zone of Kebbi State. One hundred and ten (110) students and five (5) mathematics teachers were selected from each school, using random sampling technique. The schools were - Government Day Secondary School, Jega and Government Science College, Aliero. Two research hypotheses guided the study, the research hypotheses were tested using regression analysis and ANOVA. The findings from the study revealed that teachers' academic qualification had significant effect on students' achievement in mathematics. Based on the findings of the study, it was recommended that teachers should be encouraged to further their education and also partake in in-service training and other staff development programmes such as seminars, conferences and workshops that can enhance their quality and effectiveness in the area of teaching mathematics so as to improve the academic achievement of the students in the subject[120].

An identical study was investigated on the effects of teachers' professional qualification on students' science achievement gains in both low and high performing public secondary schools in Kenya. A descriptive survey research design was employed to carry out the study. The study utilized highest education level of teachers in general and also in Chemistry. Furthermore, the quality of the teachers was also considered. The sample size of the study included two thousand (2000) grade twelve (12) students and two hundred (200) teachers from sixty (60) public secondary schools in Kisii County, Kenya. The data were collected using a questionnaire and achievement test. These instruments were subjected to face and content validation by giving them to experts in the field of education for their judgements, inputs and corrections. Furthermore, the instruments were subjected to Cronbach's alpha and Kuder-Richardson twenty (KR-20) in order to determine the reliability of the instruments respectively. The reliability coefficient values

obtained were .978 and .765 for the questionnaire and the achievement test respectively. Data collected were subjected to descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and linear regression. The research questions were answered using descriptive statistics while the hypotheses were tested using inferential statistics. Specifically, two level Hierarchical linear modelling was employed with a Value added approach to analyze data. Results revealed that teachers with advanced degrees in Chemistry significantly predicted student achievement gains positively than those with advanced degrees in any subject major. Conversely, novice teachers with few years of teaching but with higher grade 12 years of teaching coupled with teacher professional development, positively influenced student achievement gains. It was therefore recommended on the basis of the findings of the study that teachers who are qualified be recruited to teach in the schools; teachers should be encouraged to further their education and should also be trained through various in-service programs for optimum academic achievement of the students in the science subjects they study in school[121].

A similar research work was examined on the effect of teachers' qualification on students' academic performance in mathematics. The study specifically focused on the extent to which students' performance are being influenced by the teachers' qualification. The research design used is survey design and data for the study were obtained from the teachers of the selected secondary schools in Idemili North Local Government in Anambra State teaching mathematics. In order to determine the relationship between students' academic performance in mathematics and teachers' qualification, some of these key variables were used in the study, NCE, PDE/PGDE, B.Sc, B.Ed, M.Sc and M.Ed while students' performance was represented by their performance in mathematics in their previous term. The data were collected using a questionnaire. The instrument was

subjected to face and content validation by giving them to experts in the field of education for their judgements, inputs and corrections. Furthermore, the instrument was subjected to Cronbach's alpha in order to determine its reliability. The reliability coefficient value obtained was .843 for the questionnaire. Data collected were subjected to descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and linear regression. The research questions were answered using descriptive statistics while the hypotheses were tested using inferential statistics. Specifically, the statistical test of parameter estimates was conducted using the Wilcoxon statistical test tool to establish the relationship between the variables. The findings generally indicated that a significant difference existed in the performance of students taught by professional teachers and non-professional teachers. On the basis of this finding, it was concluded that students who were taught by professional teachers perform much more than students who were taught by non-professional teachers in mathematics. The study therefore recommended that only qualified mathematics teachers should teach mathematics at the secondary school level. While the holders of Nigeria Certificate in Education (NCE) should be allowed to further their education either through part-time or study leave likewise teachers without teaching qualification should pursue their Post Graduate Diploma in Education. As a result, their teaching method would be improved upon in order to better the performance of students in mathematics[122].

A study was undertaken to investigate the levels of teachers' qualifications, teaching experiences, staff capacity development and instructional task performance which impact on the students' academic achievement with the view to identifying possible solutions to poor academic performance in secondary schools in Ondo North Senatorial District of Ondo State, Nigeria. Descriptive research design of the survey type and ex-post facto research design were adopted. The sample comprised 30 principals and

600 teachers selected from 30 public secondary schools using the multi-stage, random sampling techniques. Data was collected using a Teachers' Qualification Questionnaire (TQQ) and a Students' Academic Performance Proforma (SAPP). The Theoretical Framework of study was based on Deming's Theory of Total Qualification Improvement Cycle towards the continuous improvement in organizational inputs and processes for achieving educational goals. The present study thus investigated five research questions and tested three hypotheses at 0.05 level of statistical significance. The research questions were analyzed using frequency count, percentage and mean score while the hypotheses were tested using the Pearson Product Moment Correlation (PPMC) at 0.05 level of significance. Results of the hypotheses testing revealed a strong, significant relationship between teachers' qualifications and students' academic performance; a significant relationship existing between teachers' teaching experience and the students' academic performance; and a significant relationship between teachers' capacity development and students' academic performance. It was concluded that the teachers' qualifications and teaching experience are adequate while limited opportunities are available for teachers' capacity development and could have significant implications on students' academic performance. Based on the findings, it was recommended that teachers' capacity development should be improved and more instructional resources be provided to schools[123].

A similar study was sought to identify the effect of teachers' qualification on students' performance in Mathematics in the Uasin Gishu County. The study used descriptive survey design. The target population for the study consisted of teachers of mathematics of two hundred and sixteen (216) secondary schools in Uasin Gishu County. A sample of forty two (42) secondary schools was purposively selected from the two hundred and sixteen (216) schools. Simple random sampling technique was employed to

select one hundred and twenty six (126) teachers. Primary data were collected using questionnaire. The questionnaire was subjected to face and content validation by giving them to experts in the field of education for their judgements, inputs and corrections. Furthermore, the questionnaire was subjected to Cronbach's alpha in order to determine its reliability. The reliability coefficient value obtained was .710 for the questionnaire. This reliability coefficient value meant that the questionnaire was reliable. Data collected were subjected to descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and linear regression model. The research questions were answered using descriptive statistics while the hypotheses were tested using inferential statistics using the Statistical Package for Social Sciences (SPSS). Results obtained showed that there is a positive significant relationship between teacher's qualification and mathematics performance. From the linear regression model, results showed that teachers' qualification accounted for 9.2% variation in mathematics performance. The teacher's qualification positively influenced the mathematics performance in secondary school. It was therefore recommended on the basis of the findings of the study that teachers who are qualified be recruited to teach in the schools; teachers should be encouraged to further their education and should also be trained through various in-service programs for optimum academic achievement of the students in the science subjects they study in school. The Ministry of Education should therefore offer an opportunity for the furtherance of teachers' training especially by undergoing short courses[124].

A study was carried out on the effect of Chemistry teachers' qualification on students' performance in external examination: The case of Etche local government area. Export factor and survey design was used. The population consisted of all senior public secondary school where WAEC has been conducted in Etche local government area. Six

public secondary schools were selected through simple random sampling techniques. Data were collected using Chemistry teacher's qualification questionnaire, archival documents and government source were used to retrieve students' WAEC result for 2014/2015 academic session. The data collected were analyzed using descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and Pearson product moment correlation. The results showed that most of the teachers have at most a maximum qualification of M.Sc/M.Ed. Also, there was no significant relationship between the qualification of Chemistry teachers and students' academic performance in external examinations. It was however recommended that although teachers' educational qualifications did not have any significant relationship with students' academic achievement in this study, there should still be need to ensure that only qualified teachers are employed and they also undergo continuous education and training for better performance of the students in Etche local government area[125].

A closely similar study was carried out to assess the technical instructors' self-efficacy and qualifications as correlates of students' academic achievement in Basic Technology in Edo State. The population for the study was made up of four hundred and forty eight (448) technical teachers. A multi-stage sampling method was adopted in the selection of schools for the study. Six local governments were selected as clusters and the schools were selected using a simple random sampling technique within the clusters. A purposive random sampling technique was employed to sample one hundred and twenty six (126) technical teachers involved in the study. The instruments used for data collection were Teacher Self-Efficacy Scale (TSES) with a Cronbach Alpha reliability of .876 and students' JSS III mock examination scores for their achievement. The data obtained were analyzed using Pearson Product Moment Correlation coefficient and regression analysis. The findings indicated that forty percent (40%) of the difference in

students' academic performance in Basic Technology was due to technical teachers' qualifications and that there was a strong link between technical teachers' self-efficacy and students' academic success in Basic Technology. The study's findings suggested, among other things, that technical teachers' self-efficacy should be taken into account when it comes to students' academic achievement in Basic Technology[126].

A closely related research work was implemented to evaluate the significance of the impact of Teachers' qualification/expertise on the academic performance of learners studying computer studies at secondary school level. The study was conducted using majorly secondary schools given the status of model secondary school in Ogun State with the basic assumption that best of facilities and personnel are provided to such schools. The specific objectives of the study were to: investigate the computer studies teachers and their role in computer education programs; examine the place of qualified teachers as factor in determining effective teaching; and determine how it influences students' academic performance in computer studies. In this research, two hundred (200) students were selected through a random sampling technique. A well-structured questionnaire that went through test-re-test for validation purpose was used for the data collection. The reliability coefficient value obtained was .923 for the questionnaire. Data collected were subjected to descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and chi-square. The research questions were answered using descriptive statistics while the hypotheses were tested using inferential statistics. The findings of the study indicated that the assessment of professional teachers' qualification has significant impact on male and female students' academic performance in the selected junior secondary schools in Abeokuta-South local government area of Ogun State. It was therefore recommended on the basis of the findings of the study that teachers who are qualified be recruited to teach in the schools; teachers should be encouraged to further

their education and should also be trained through various in-service programs for optimum academic achievement of the students in computer studies at secondary school level.[127].

Another identical study was conducted to investigate how teachers' qualification, attitude and mastery of content correlates with students' achievement in Economics in Senior Secondary Schools in Lagos State, Nigeria. A descriptive survey research design was adopted for the study. Multi-stage sampling technique was employed to select a total of thirty (30) public senior secondary schools and six hundred (600) students from three out of the five local government areas in Lagos East Senatorial District. Five research hypotheses were tested and answered using three instruments: Economics Achievement Test; (r = 0.976), Teachers' Questionnaire - (Perceived Teachers' Mastery of Content Scale; (r= 0.986), and Teachers' Attitude Questionnaire; (r= 0.978), and Students' Perceived Teachers' Subject Mastery Questionnaire; (r = 0.988). Data were analysed using Pearson Product Moment Correlation Coefficient and Multiple Regression analyses. The results of the findings revealed that there is a significant relationship between teachers' mastery of content and students' achievement in Economics as well as between teachers' attitude and achievement. However, no significant relationship was established between qualification and achievement. Based on these findings, it was recommended among others that teachers should equip themselves pedagogically through in-service training to enhance students' academic achievement in Economics. Furthermore, teachers who are qualified be recruited to teach in the schools and they should also be encouraged to further their education for optimum academic achievement of the students in Economics[128].

A similar research work was investigated on the relationship between teachers' qualification and students' academic achievements in Economics in senior secondary

schools in Adamawa State, Nigeria. The study was set to achieve four objectives, four research questions and four hypotheses, the design, for the study was a descriptive survey design. The area of the study was Adamawa State. The population of the study consisted of three hundred and thirty seven (337) principals and three thousand, seven hundred and twenty (3,720) Economics students in all the public secondary schools within the five education zones of Adamawa State. The sample for the study was seventy three (73) principals and three hundred and seventy two (372) SS2 Economics students. These samples were selected using the Taro Yamane formula. The instruments were questionnaires on teachers' qualification and student academic achievement from the selected schools. The instrument was validated by four Senior Lecturers. A reliability coefficient of 0.983 was obtained using Cronbach's Alpha method. The data was collected through the administration of the questionnaires. Mean and the standard deviation was employed to answer the research questions. While inferential statistics such as t-test was employed to test the null hypothesis at 0.05 level of significance. The results of the finding revealed that teachers' qualifications have a significant predictive ability on students' academic achievement. Therefore, it was recommended based on the results of the study that the Government should ensure the adequate recruitment of dedicated, qualified teachers to teach in all secondary schools in the study area in particular and the country in general[129].

A study was conducted on the impact of teachers' qualification on students' academic performance in secondary schools in north central zone, Nigeria. The study had two objectives among which were to; find out the impact teachers' classroom organization on students' academic performance in secondary schools in North Central Zone, Nigeria; and determine the impact teachers' communication skills on students' academic performance in secondary schools in North Central Zone, Nigeria. In line with

these objectives, two research questions and two null hypotheses were formulated. Related literatures were reviewed. Descriptive research design was adopted for the study. A total of three hundred and eighty (380) respondents were sampled from the total population of forty six thousand and seventy seven (46,077), through the use of research advisor. A structured questionnaire designed on a five-point likert scale was employed to collect data from the respondents. The data collected were presented in table and were analyzed using weighted mean (standard deviation) to analyze the responses of the respondents to the research questions. The two null hypotheses were tested using One Way Analysis of Variance (ANOVA) at 0.05 alpha levels of significance. Descriptive statistic was employed to analyze the bio-data of the respondents. Major findings of the study were that: proper arrangement of classroom facilities by teachers led to positive classroom environment which further enhances students' academic performance in secondary schools in North-Central Zone Nigeria; and Teachers' communication skills make lessons engaging and interesting which improves students' academic performance in secondary schools in North-Central Zone, Nigeria. It was recommended that every single teacher should be afforded the opportunity for a refresher course on classroom organization, this will make him or her master of his class and the student will respect him for that. Every teacher should deliberately develop capacity for effective communication in his or her area of specialization through continuous reading, refresher courses and been conversant with dynamics of change in area of specialty. The study concluded that Teachers' qualification is a potent tool for determining students' academic performance and second to none factor in determining the effectiveness and efficiency of curriculum implementation in secondary schools in North Central Zone Nigeria. Teacher qualification is therefore a panacea to students poor performance if given due attention[130].

A related research work was assessed on teachers' qualification as determinant of students' academic achievement in Basic Electricity in Science and Technical Colleges in Bauchi and the Gombe States. Two research questions guided the study and one hypothesis formulated was tested at 0.05 level of significance. The study adopted a correlation research design. The area of the study was Bauchi and Gombe States. The study had a total population of one thousand, one hundred and seven (1,107) students and eighteen (18) teachers. A simple random sampling technique was employed to select students from thirteen (13) Science and Technical Colleges. Two hundred and seventy-eight (278) students were selected using proportionate random sampling technique while all the eighteen (18) Basic Electricity Teachers were used for the study. The Teacher's Qualification Questionnaire (TQQ) was employed to collect data from basic electricity teachers while internal examination scores in basic electricity were used for students' academic achievement. The instrument was validated by four experts in the Faculty of Technology Education, Abubakar Tafawa Balewa University, Bauchi. Cronbach alpha reliability method was employed to determine internal consistency of the questionnaire items and reliability coefficient of 0.972 was obtained. The research questions one and two were answered using Point Bi-serial and Pearson Product Moment Correlation Coefficient respectively while hypothesis was tested using Simple Linear Regression at 0.05 level of significant. Findings indicated that Teachers' educational qualification has a significant relationship with students' academic achievement in basic electricity. Also, findings revealed that, teacher's qualification was the determinant of students' academic achievement in the subject. Therefore, it was recommended among others that: Bauchi and Gombe States governments should set up modalities for retaining veteran Basic Electricity Teachers and sponsored those with lower qualifications to further their studies.

And more emphasis should be laid on higher qualifications with experience during recruitment[131].

Similarly, a study was investigated on the relationship between teacher qualification and students' academic performance with empowerment as a mediator. About three hundred and seventy nine (379) teachers were selected randomly from public secondary schools, Kwara state, Nigeria. Structural equation model (SEM) was utilized to test the hypothesized model. The result of the study showed that teachers' qualification was positively related to students' academic performance which meant that qualification of teachers determines the success of students. Insignificant relationship was found between teacher qualification and principal empowerment practices which showed that the relationship did not exist. Also, the relationship between principal empowerment practices and students' academic performance was tested of which the results revealed as insignificant. Lastly, the mediating role of principal empowerment practices was tested on the relationship between teacher qualification and students' academic performance which accounted for partial mediator. It was recommended that, the empowerment process should be internalized to complement the qualities of teachers in the schools. Synergy should exist between school heads and teachers for the purpose of students achieving educational objectives[132].

2.3.2.5 Teaching Style and Students' Academic Achievement in Economics

A study investigated the influence of teacher personality in terms of style of teaching on the academic achievement of chemistry students in Ekiti State, Nigeria. The research design used was survey design of the descriptive type of research. The sample

size of two hundred (200) respondents was sampled for the study using simple random sampling technique to select public secondary schools across Ado, Ikole and Ikere Local Government Areas of Ekiti State. The respondents were drawn from fifty (50) selected secondary schools with two chemistry teachers being selected from each school. The instrument for data collection for the study was a self-structured questionnaire. The split-half method of reliability was employed to ascertain the reliability of the instrument using Spearman Brown's Prophecy formula and Pearson Product Moment Correlation statistical analysis. A correlation coefficient value of 0.899 was obtained. This value when subjected to psychometric test was found to be reliable. Descriptive statistics such as frequency counts and percentage were used to analyse the demographic characteristics of respondents. Also, descriptive statistics such as mean, standard deviation, frequency counts and percentage were used to answer the research questions while the hypotheses were tested using inferential statistics of Correlation statistical analysis. The findings of the study showed that there is a significant positive correlation between teachers' style of teaching and academic achievement of chemistry students. It was recommended based on the results of the study that teachers should be trained on the proper style to employ in teaching the students chemistry subject for improved academic performance[4].

A related study was undertaken to explore the effect of matching/mismatching of teaching and learning styles on academic achievement in higher education. The study was causal comparative in nature in that it focused on the cause and effect relationships between matching/mismatching of teaching-learning styles on students' academic achievement. The sample for the study, selected through multistage sampling design, consisted of one hundred and twenty (120) teachers and two hundred and forty (240) students of Bachelor of Science year four program in four disciplines (Physics, Chemistry, Botany and Mathematics) from six public sector universities of Khyber Pakhtunkhwa,

Pakistan. Felder-Solomon Index of Learning Style (FSILS) was employed for the identification of learning styles of students while Teaching Style Instrument was employed to identify teachers' teaching styles. These styles of students and teachers were then analyzed to see if they matched or mismatched. The questionnaire was subjected to face and content validation by giving them to experts in the field of education for their judgements, inputs and corrections. Furthermore, the questionnaire was subjected to Cronbach's alpha in order to determine its reliability. The reliability coefficient value obtained was .820 for the questionnaire. This reliability coefficient value meant that the questionnaire was reliable. Data collected were subjected to descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and T-test. The research questions were answered using descriptive statistics while the hypotheses were tested using inferential statistics using the Statistical Package for Social Sciences (SPSS). The results showed that Visual learning style was the most favorite learning style followed by Balanced and Sensing learning style. Teaching style analysis showed that Visual teaching style was the most favorite style followed by Abstract and Sequential teaching styles. Group statistics indicated below average percentage of matched cases and a little above average percentage of mismatched cases. T-test for independent samples revealed that the students with matched learning styles performed significantly better than students with mismatched learning styles. In the light of these results, it was recommended that teachers adopt the right teaching styles for better performance of the students[21].

A closely similar study was carried out to analyze the effect of 1) teaching style on students' motivation and learning achievement; 2) students' motivation on learning achievement; and 3) students' motivation in the relationship between teaching style and learning achievement. The study was based on a survey of two hundred and forty three

(243) students who were selected using the proportional stratified random sampling technique. The data were collected using a questionnaire. The instrument was subjected to face and content validation by giving them to experts in the field of education for their judgements, inputs and corrections. Furthermore, the instrument was subjected to Cronbach's alpha in order to determine its reliability. The reliability coefficient value obtained was .811 for the questionnaire. Data collected were subjected to descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and linear regression. The research questions were answered using descriptive statistics while the hypotheses were tested using inferential statistics such as structural equation modeling (SEM). The results show that the teachers' teaching style has a positive and significant effect on students' motivation and learning achievement. Students' motivation further mediates the relationship between teaching style and learning achievement. It was recommended based on the results of the study that teachers should be properly equipped on the use of right teaching style that can enhance students' motivation during teaching and learning process and also boost the learning achievement of the students[53].

A similar study was carried out to investigate the effect of teaching styles of teachers on academic achievement of students learning in a General Science subject at the elementary level. The population of the study consisted of fifty two (52) elementary school teachers who were taught General Science the subject in 8th class and eight hundred and eighteen (818) students enrolled in different schools on session 2018-2019 in district Astore. However, a sample of two hundred and seventy seven (277) participants from the population were drawn using simple random sampling technique which was applied specifically for students' selection. Casual comparative research design was adopted to carry out the study. Grasha's Teaching Style questionnaire was employed to measure the teaching styles of teachers. Data collected were subjected to descriptive and

inferential statistics such as mean, standard deviation, frequency, percentages and Tukey test. The research questions were answered using descriptive statistics while the hypotheses were tested at 0.05 level of significance. The results of Tukey test revealed that there is a highly significant difference found among the expert, facilitator and delegators' teaching styles with academic achievement of students in Science subjects. This results implies that students get the highest marks when the teachers employ the facilitators/delegators' teaching styles but get low marks when teachers employ the expert and formal authority style in General Science subject in 8th grade. Hence, it was recommended that elementary school teachers may use a facilitator and delegators types of teaching styles during the teaching of General Science content in class 8th for achieving more academic success[54].

Similarly, a research work was examined on the influence of teaching styles on the academic performance of students in secondary schools in Mbarara Municipality. The study adopted a cross sectional survey design which incorporated qualitative and quantitative approaches. The study used a sample of two hundred and sixteen (216) respondents where seventy (70) teachers, one hundred and thirty eight (138) students, three (3) inspectors and five (5) head teachers. Questionnaire survey method was employed to gather data from both teachers and students whereas head teachers and inspectors of schools were subjected to in-depth interviews. Quantitative data was analyzed with help of descriptive and inferential statistics using SPSS while thematic analysis was employed to analyze qualitative data. From the study findings, it was found out that learner centered and teacher centred teaching styles were commonly used in secondary schools of Mbarara Municipality but most importantly learner centred teaching styles were predominantly used. The study found out that teaching styles influences the level of mastery of concepts and skills in aspects like communication, research, reporting

and self-expression among others. It was recommended that teachers should employ a variety of teaching styles but most preferably learner centred styles need to be emphasized in order to promote students' learning achievement. Also, refresher's courses among secondary school teachers should be employed in order to equip them with the most current effective teaching styles under tooling and re-tooling programmes. Lastly, teachers ought to be mindful when selecting the teaching styles and instructional materials that motivate learners in the teaching learning process so as to ensure that only teaching styles that boost learners' academic achievement are employed[55].

An identical study was investigated on the influence of teaching styles on students' achievement and interest in Biology in Secondary schools in Taraba state. The study was guided by two research questions and two hypotheses. The study adopted the survey and quasi experimental research designs. A sample of three hundred and thirty six (336) senior secondary school two students from ten (10) secondary schools was drawn using stratified sampling technique. The instrument used for data collection were the Biology Achievement Test (BAT) and Biology Interest Inventory developed by the researcher. Biology teachers in the selected schools were observed and their teaching styles were identified either as students centred or teacher centred using teaching style check list. The treatment was carried out in six weeks during which data were also collected at various intervals using the BAT and BII. The data collected were analyzed using mean and standard deviations to answer the two research questions while analysis of covariance (ANCOVA) was employed in testing the two hypotheses at 0.05 level of significance. The findings indicated that there is a significant difference in the mean achievement scores of students' taught Biology using student centred teaching styles and those taught using the teacher centred teaching styles with those taught using student centred teaching styles achieving higher. Also students who were taught Biology using

student centred teaching styles had a higher interest rating than those taught using the teacher centred teaching styles. It was recommended that Biology teachers should use student centred teaching styles which provides students the opportunity to take charge of their learning and be actively involve thereby enhancing their achievement and interest and that ministry of Education should organize workshops/seminars to train in-service Biology teachers on how to use student centred teaching styles[133].

A closely related study was investigated on the interaction effects of teaching style and gender on students' academic achievement and interest in selected topics in electronic libraries. The Quasi-Experimental design was adopted to carry out the study. One institution was assigned to the experimental group while the other was assigned to the control group through a simple toss of the coin. Therefore two groups consisting of experimental and control each consisting of thirty (30) respondents was employed to investigate the interaction effect of teaching style(CAI) and gender on academic achievement and interest of students' in electronic libraries. The sample for the study therefore consisted of sixty (60) electronic libraries students from a population of hundred (100) students in the tertiary institutions in Anambra State. Purposive random sampling was employed to draw two institutions from the three federal institutions in Anambra State. In order to carry out the study effectively two hypotheses were formulated to guide the study. A structured, self-administered questionnaire was employed for data collection. The internal consistency of the instrument was determined using Kuder-Richardson Formular 21 (KR-21) which yielded a reliability coefficient of 0.892. The instruments were validated by experts. Data collected were subjected to descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and t-test. The research questions were answered using descriptive statistics while the hypotheses were tested using inferential statistics such as t-test and Z-test. Mean and Standard Deviation

were used to answer the research question. Experimental group was taught through computer aided instruction whereas control group was taught through modified lecture method. On the completion of six weeks' the effects of teaching style and gender were determined. Results showed that there is no significant interaction effect of teaching style and gender on the mean interest scores of students in electronic libraries. However, no significant interaction effect of teaching style and gender was found on the mean achievement scores of students' in electronic libraries course[134].

An identical study was implemented to investigate the differential relationship between teaching styles and students' academic performances in Ibarapa East Local Government area Secondary schools. A sample of hundred (100) students drawn from the Sciences, Commercial and Arts departments of all the secondary schools in the local government area were used for the study. Using the inferential statistics, students' assessment test scores were derived from the internal class test prepared by some Measurement and Evaluation teachers. The differential relationship of the three major teaching styles on students' academic performances was analysed using the General Linear Model based univariate ANOVA technique. The results indicated that there are significant differences in the relationship between the three teaching styles and students' academic performances. The mean scores results demonstrate that teacher-students interactive style was the most effective teaching style, followed by student-centered style while the teacher-centered approach was the least effective teaching style. Recommendations were given that: New approaches to teaching – learning processes which connect to the learning needs of students should be put in place in order to reduce the menace of students performing poorly in school and eventually dropping out of studies; Student-centered learning environment should be encouraged in our secondary schools because it produces higher-level learning outcomes more efficiently than a

traditional teacher-centered environment; There should be no bias in the selection of teaching styles by teachers in areas in which they possess exclusive monopoly knowledge to improve students' academic performances in our secondary schools; and Teachers should create an atmosphere conducive for learning in order to enhance the development of students' learning experiences[135].

A similar study was implemented on the impact of teaching styles on Geography students' performance in Zaria Local Government Area, Kaduna State, Nigeria. Six senior secondary schools: AlhudaHuda College, Barewa College, Government Secondary School Kofar Kibo, Government Girls Secondary School Kofar Gayan, Government Girls Secondary School Pada and Government Girls Secondary School, Kongo were sampled. The population of the study consisted of forty five thousand, six hundred and fifty eight (45,658) participants out of which a sample of four hundred and twenty three (423) respondents were drawn using multi-stage sampling techniques. Students' performance was represented by their performance in geography in their previous term result. The data were collected using a questionnaire. The instrument was subjected to face and content validation by giving them to experts in the field of education for their judgements, inputs and corrections. Furthermore, the instrument was subjected to Cronbach's alpha in order to determine its reliability. The reliability coefficient value obtained was .797 for the questionnaire. Data collected were subjected to descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and linear regression. The research questions were answered using descriptive statistics while the hypotheses were tested using inferential statistics. The results of the study revealed a significant impact of teaching styles on Geography students' performance in Zaria Local Government Area, Kaduna State, Nigeria. It was recommended on the basis of the findings that teachers

should ensure that they develop the right teaching style probably student-centred style for teaching purposes so as to positively impact the academic performance of the students[136].

A closely related study was examined on the relationship between teaching styles and academic performance of secondary school students in Nigeria. The study adopted descriptive research design but with mixed approaches of data collection and analysis. Target population comprised of one hundred and eighty (180) students in three secondary schools in Nassarawa Local Government, Kano. A total of sixty (60) respondents were selected using stratified random sampling technique. The data were collected using a questionnaire. The questionnaire was subjected to face and content validity evidence which involved showing it to experts in the field of educational management at Nassarawa State University for their inputs and corrections. The questionnaire was subjected to Split-half reliability so as to determine its reliability. After the questionnaire had been distributed and retrieved, they were divided into odd and even splits. The questionnaire was then subjected to Pearson product moment correlation to calculate half the questionnaire while Spearman Brown Prophecy formula was used to calculate the full questionnaire. The reliability coefficient gave a value of .947 which was interpreted as reliable. The questionnaire was administered personally and with the help of research assistants. The data collected were subjected to descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and Chi-square. The research questions were answered using descriptive statistics while the hypotheses were tested using inferential statistics. The hypotheses were tested at the level of significance of 0.05. The findings from the study revealed that most of the teachers' style of teaching have a great effect on students' academic performance. On the basis of the findings, it was recommended that teachers should ensure that they develop the Student-Centered style

and Teacher-Student Interactive style in order to improve students' academic performance[137].

A closely similar study was undertaken to assess teaching styles or methods as correlate of students' Academic performance in Business Studies in Port Harcourt Local Government Area of Rivers State. Lecture style and discussion style were specifically used as representative of the two broad categories of teaching styles. To achieve the objective, the study adopted correlation research design. Two research questions and two null hypotheses were raised to guide the study. A sample of one hundred (100) students from a randomly selected intact class of one randomly selected Junior Secondary school was employed. Three items parallel forms of business studies achievement test were used for data collection and the test item validated by experts including two business educators and a test expert in measurement and evaluation from the Rivers State University. A reliability coefficient of 0.786 was obtained using a test-re-test method of carrying out reliability of an instrument. The Pearson Product Moment Correlation coefficient (PPMC) formula was used to achieve the reliability coefficient value of the questionnaire. Descriptive and inferential statistical tools were employed in answering the research questions and testing the hypotheses. Specifically, the use of r – values was employed to determine weight of relationship between pre-test and post-test scores after using lecture and discussion styles respectively and to test the null hypotheses by comparing the calculated r-values and the critical r values of establish the significance of relationship at 0.05 level of significance. Results revealed a high coefficient correlation values for both lecture and discussion style which indicated a significantly high positive relationship between pretest-test and post-test scores after using the two styles. It was therefore concluded that teaching styles or methods significantly correlates with students' Academic performance in Business Studies in Port Harcourt Local Government Area of

Rivers State. It was recommended that teachers should continue to hone their skills, by attending workshops, conferences, seminars and other teaching enhancing programmes so they can improve in their teaching styles or methods; and they should be aware of the right teaching styles to apply especially when one style is not effective as this would ensure that students' academic achievement in business studies is improved upon and maintained[138].

An identical study was also carried out on the effect of teaching style on students' academic performance in chemistry. The study employed the use of meta-analytic review to harmonize studies conducted in Nigeria from 1990 to 2010. The research design was quasi-experimental. This quasi experimental review was carried out under six phases namely;- collection of the study, coding of the study, determination of inter-raters reliability, setting a benchmark for selecting a study, calculation of effect sizes and carrying out analysis. Fifty-one research works were sampled and used because they met the benchmark set for selection. Seven categories of teaching styles were identified and they include: mastery learning, Computer Assisted Instruction, Instructional Materials, Problem solving, Constructivist/concept mapping, games/simulation/animations and student grouping/cooperative learning. It was generally revealed that the various categories of teaching styles have significant effect on students' academic performance in chemistry. It was therefore recommended on the basis of the finding that teachers should ensure that they employ various styles that are compatible with students' learning outcomes so as to improve their academic achievement especially in subjects like chemistry[139].

A similar study was explored on the teaching styles of teachers and its effect on students' achievement. The objectives were to find the impact of teaching styles of teachers on achievement scores of students and examine the correlation of teachers'

teaching styles with students' achievement. The study comprised of four hundred and eighty (480) Bachelor of Science students from Education University Faisalabad from five classes. The Teaching Styles Survey was employed as instrument. The questionnaire was subjected to face and content validation by giving them to experts in the field of education for their judgements, inputs and corrections. Furthermore, the questionnaire was subjected to Cronbach's alpha in order to determine its reliability. The reliability coefficient value obtained was .701 for the questionnaire. This reliability coefficient value meant that the questionnaire was reliable. Data collected were subjected to descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and Pearson product moment correlation. The research questions were answered using descriptive statistics while the hypotheses were tested using inferential statistics using the Statistical Package for Social Sciences (SPSS). The result showed that the top most teaching style of teachers was role model. Female students had achieved higher grades in the class than that of male class fellows. Female students rated that teachers use formal authority, role model, delegator and facilitator as most frequent used teachers' styles. The level of classes had an impact on the formal authority, role model, delegator and facilitator teaching styles. Expert teaching style has weak positive correlation with role model, moderate correlation with formal authority and facilitator teaching styles and strong positive correlation with delegator teaching style. It was recommended that students should train to get more benefit of teachers teaching styles and teachers should ensure that they employ the right teaching styles during teaching and learning activities[140].

An identical study was undertaken to explore the perceived teaching style (autonomous-supportive and/or controlling) and its correlation with students' engagement, curiosity and exploration in cross-sectional sample of school and university students. Three questionnaires were used: Perceived Parental Autonomy Support Scale P-PASS;

Student Engagement Instrument; and Curiosity and Exploration Inventory. The questionnaires were subjected to face and content validation by giving them to experts in the field of education for their judgements, inputs and corrections. Furthermore, the questionnaires were subjected to Cronbach's alpha in order to determine its reliability. The reliability coefficient values obtained were .818, .892 and .920 respectively for all the questionnaires. These reliability coefficient values meant that all three questionnaires were reliable. Data collected were subjected to descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and Pearson product moment correlation. The research questions were answered using descriptive statistics while the hypotheses were tested using inferential statistics using the Statistical Package for Social Sciences (SPSS). The results showed that students simultaneously perceived both teaching styles, that is, Autonomous-supportive and Controlling. However, a significant difference was observed between the score of school students where they found their teachers to be more supportive and controlling as compared to university students. Furthermore, there was moderate significant correlation between perceived autonomy support teaching style with students' engagement as well as curiosity and exploration. It was therefore concluded that students perceive that the teaching style of their teachers contribute to their curiosity and motivation to engage in classroom. It was however recommended that teachers should try as much as possible to adopt teaching styles that are student centred and can arouse students' curiosity, motivation to learn in the classroom and improve their academic performance[141].

A similar investigation was carried out on the effect of English Language teachers' teaching style on students' academic performance and satisfaction. Students' academic performance and satisfaction have been a core issue at higher educational institutions in Pakistan. English Language teachers' teaching style is an essential factor that could

influence teaching and learning in the institution. A simple random sampling technique was used to select a fraction of the population. The data for the study were collected from the English department students at two public sector universities in Karachi using a survey questionnaire. The questionnaire was subjected to face and content validation by giving them to experts in the field of education for their judgements, inputs and corrections. Furthermore, the questionnaire was subjected to Cronbach's alpha in order to determine its reliability. The reliability coefficient value obtained was .771. This reliability coefficient value meant that the questionnaire was reliable. The questionnaire was administered to about four hundred (400) respondents of which twenty one (21) questionnaires were invalid. Therefore, three hundred and seventy nine (379) were therefore used for the study. Data collected were subjected to descriptive and inferential statistics such as mean, standard deviation, frequency, percentages and Partial Least Square -Structural Equation Modeling (PLS-SEM. The research questions were answered using descriptive statistics while the hypotheses were tested using inferential statistics using the Statistical Package for Social Sciences (SPSS). Specifically, Partial Least Square -Structural Equation Modeling (PLS-SEM) was used to establish a measurement model and test the hypotheses at 0.05 level of significance. The finding of the first hypothesis revealed that English language teachers' teaching style has a positive and significant impact on the students' academic performance at the higher education level. The findings of the second hypothesis revealed that students' academic performance has a negative and insignificant impact on the students' satisfaction at higher education levels. It was therefore recommended that teachers should employ teaching styles that are student centred or student focused as these styles can ensure that the students are active not passive learners. The student-centred style can also arouse the inquisitive minds of the

students which would ultimately impact positively on their academic performance in English language[142].

2.4 Conceptual Model

The conceptual model for the study shows the relationship between the independent variables (class size and teacher factors) and the dependent variable (students' academic achievement in Economics) as illustrated in figure 2.1:

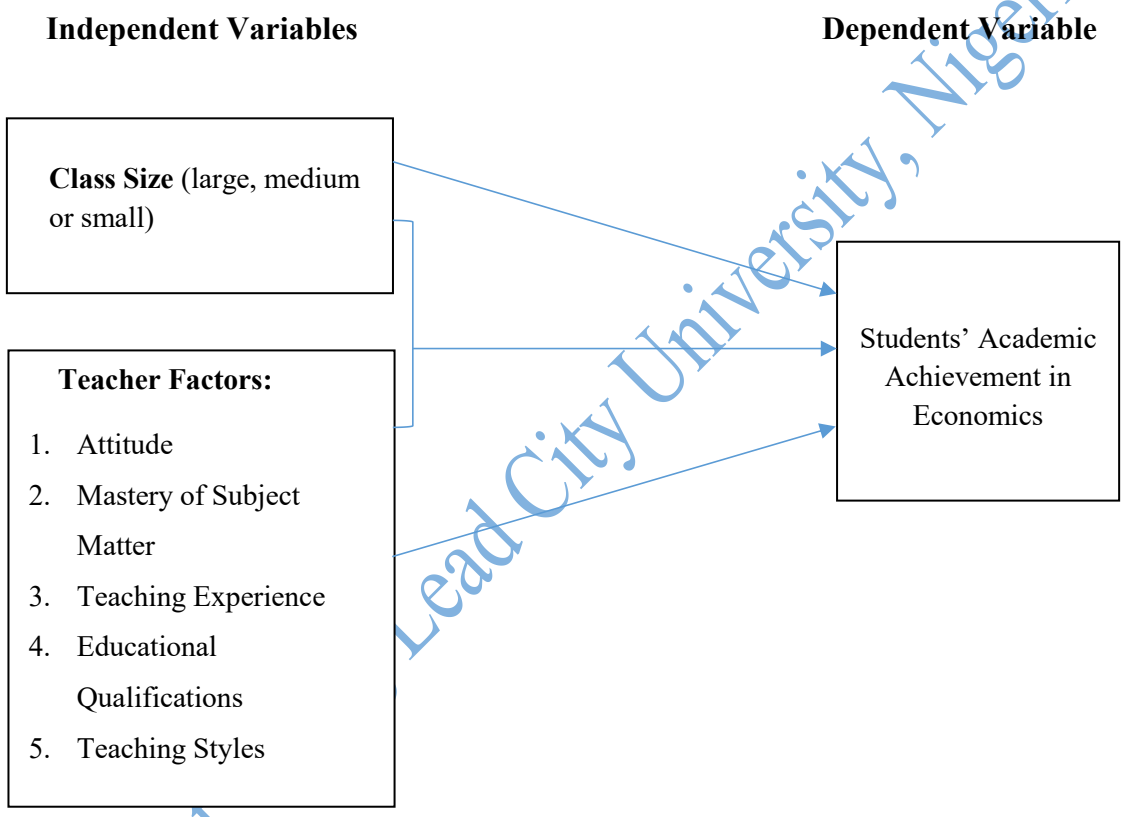

Figure 2.1: Conceptual Model for the Study

Figure 2.1 shows the joint and relative influence of the independent variables (class size and teacher factors) on the dependent variable (students' academic achievement in Economics). Class size which could be small, medium or large would be studied as a single variable. However, teacher factors would be treated using the following indices – teachers' mastery of subject matter, teachers' attitude, teachers' teaching experience, teachers' educational qualification and teachers' teaching styles.

However, students' academic achievement in Economics would be treated as a single variable.

2.5 Summary of Gaps in Literature Reviewed

This chapter focuses on the review of several literatures that are similar to this present study. The chapter is reviewed based on the following sub-headings – conceptual review, theoretical review and empirical review. Conceptual review focuses on the concepts in the research topic. This section gives deeper insight that enhances better understanding of the constructs of the study. The major concepts that were reviewed are – academic achievement, Economics, class size, teacher factors (teachers' mastery of subject matter, teachers' attitude, teachers' teaching experience, teachers' educational qualification and teachers' teaching styles).

The theoretical framework consisted of two major theories which are - Pritchard's Theory of Class Size and Education Function Theory. The Pritchard's Theory of Class Size rendered support to the influence of class size in determining the academic achievement of students in Economics while Education Function Theory rendered support to the influence of teacher factors on the academic achievement of students in Economics. The Pritchard's Theory of Class Size shows the role of class size in allowing the teachers to be or not able to supervise the students during teaching and learning activities. However, Education Function Theory deals with the fact that the quality of input such as human resource (teachers) determines the output (academic achievement of students).

Lastly, this chapter looked at various prior studies that are similar to the present study under investigation. Several similar studies have been carried out on class size and academic achievement of students. For instance, studies noted that classroom size has negative impact on academic performance of secondary school students in English language in Ekiti and Borno states, Nigeria[22,61&64]. The findings of a study revealed that

students in small class size performed better than those in large class in Basic Science and Technology in Gwagwalada Area Council FCT Abuja, Nigeria[59]. However, studies are limited on the influence of class size on students' academic achievement in Economics in public senior secondary schools, Southwest Nigeria.

Several similar studies have been carried out on teachers' mastery of subject matter and academic achievement of students. A study revealed that teachers' subject content knowledge and pedagogical skills influence students' academic performance in public senior secondary schools in Ikot Ekpene and Essien Udim Local Government Areas of Akwa Ibom State[31]. Studies reveal that teachers' mastery of subject matter significantly affects the academic performance of secondary school students in Jalingo and Kaduna States, Nigeria[12&81]. However, studies are limited on the influence of teachers' mastery of subject matter on students' academic achievement in Economics in public senior secondary schools, Southwest Nigeria.

Several similar studies have been carried out on teachers' attitude and students' academic achievement. For instance, studies indicate that there is a significant positive relationship between teachers' attitude and students' achievement in Basic science and technology, English language, Chemistry and Economics in Ibadan Metropolis, Ekiti and Bauchi states respectively[4,10,34&94]. Studies also showed that teachers' attitude significantly predicted students' academic performance in Financial Accounting and Agricultural Science in senior secondary schools in Adamawa and Abia States, Nigeria[35&36]. However, studies are limited on the influence of teachers' attitude on students' academic achievement in Economics in public senior secondary schools, Southwest Nigeria.

Several similar studies have been carried out on teachers' teaching experience and academic achievement of students. Studies revealed a significant relationship between

teachers' teaching experience and academic performance of students in Biology in Ekiti State[47&109]. Studies also showed that teacher's teaching experience significantly affect the academic performance of secondary school students in Science subjects in Benue and Ondo States, Nigeria[105&106]. A study concluded that the level of secondary school students' performance in music in South-South Nigeria is significantly affected by teachers' level of years of experience[108]. However, studies are limited on the influence of teachers' teaching experience on students' academic achievement in Economics in public senior secondary schools, Southwest Nigeria.

Several similar studies have been carried out on teachers' teaching experience and academic achievement of students. Studies show significant relationship between teachers' educational qualification and students' academic performance in Biology and Economics in Kaduna, Oyo, Ogun, Bauchi, Borno and Ekiti States[28,33,50,111,112&116]. However, a study revealed no significant relationship between Chemistry teachers' qualification and students' academic achievement in Etche local government area[125]. However, studies are limited on the influence of teachers' educational qualification on students' academic achievement in Economics in public senior secondary schools, Southwest Nigeria.

Several similar studies have been carried out on teachers' teaching styles and academic achievement of students. Studies showed a significant positive correlation between teachers' style of teaching and academic achievement of students in chemistry and Biology in Ekiti and Taraba states[4&133]. A study reported that teaching styles influences the level of mastery of concepts and skills in students in Mbarara Municipality[55]. However, studies are limited on the influence of teachers' teaching styles on students' academic achievement in Economics in public senior secondary schools, Southwest Nigeria. The above prior studies reveal scarcity of studies on class size and

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Chapter Three

Methodology

This chapter presents the methods that were used to carry out this study. It is discussed based on the following sub-headings:

3.1 Research Design

A descriptive survey research design was used to carry out this study. Descriptive survey research is a type that aims to systematically and accurately describe a population, situation or phenomenon by answering where, what, when and how but not why questions.

This design is used to investigate one or more variables and the researcher does not control or manipulate any of the variables, but observes and measures them[1]. This study consisted of three variables which includes two independent variables (class size and teacher factors) and one dependent variable (students' academic achievement in Economics).

3.2 Population of the Study

The population of the study comprised of all the public senior secondary school two (SSS2) students and Economics teachers in Southwest, Nigeria. Senior secondary schools were used because Economics is a core subject that is taught only at the senior secondary school level. Senior secondary school two students were used because they should have stayed long enough in the school and learnt a lot from their Economics teachers. The statistics of the names of senatorial districts, number of public secondary schools, Economics teachers and senior secondary school two students are presented in table 3.1:

Table 3.1: Population of the Study

S/N	Southwest States	Senatorial Districts	No. of Public Sec. schools	No. of Public sec. school Economics teachers	No. of Public SSS2 students
1.	**Lagos**	Lagos Central	74	225	11,250
		Lagos East	88	264	13,231
		Lagos West	160	482	23,021
		Sub-Total	**322**	**971**	**47,502**
2.	**Ogun**	Ogun Central	100	307	14,221
		Ogun East	134	408	13,243
		Ogun West	108	329	15,259
		Sub-Total	**342**	**1,044**	**42,723**
3.	**Oyo**	Oyo Central	244	737	28,243
		Oyo North	171	519	17,259

		Oyo South	210	635	21,099
		Sub-Total	**625**	**1,891**	**66,601**
4.	**Osun**	Osun Central	112	339	15,535
		Osun East	159	481	21,643
		Osun West	123	369	17,155
		Sub-Total	**394**	**1,189**	**54,333**
5.	**Ekiti**	Ekiti Central	159	477	19,958
		Ekiti East	57	176	8,821
		Ekiti North	64	197	9,100
		Sub-Total	**280**	**850**	**37,879**
6.	**Ondo**	Ondo Central	103	313	13,554
		Ondo North	89	269	12,008
		Ondo South	107	328	14,532
		Sub-Total	**299**	**910**	**40,094**
		Grand Total	**2,262**	**6,855**	**289,132**

Source: Teaching Service Commissions (TESCOM) Ibadan, Oyo State. 2022[2]

3.3 Sample and Sampling Techniques

A multi-stage sampling technique consisting of purposive sampling technique, simple random, proportionate to size and Yamane (Slovin) sampling techniques was used to arrive at the sample size for the study. At stage one, the simple random sampling technique known as "table of random numbers" was used to select three (3) out of the six (6) southwest states on the basis of an even number of two (2). This means that every two states on the table would be picked starting from the first state. So the researcher randomly choose Lagos, Oyo and Ekiti states. The selected states and their number of Economics teachers and senior secondary school two students are shown in table 3.2.

Table 3.2: Sampled Southwest States (n = 3)

S/N	Southwest States	Senatorial Districts	No. of Public Sec. schools	No. of Public sec. sch. Economics teachers	No. of Public SSS2 students
1.	**Lagos**	Lagos Central	74	225	11,250
		Lagos East	88	264	13,231
		Lagos West	160	482	23,021
		Sub-Total	**322**	**971**	**47,502**
2.	**Oyo**	Oyo Central	244	737	28,243
		Oyo North	171	519	17,259
		Oyo South	210	635	21,099
		Sub-Total	**625**	**1,891**	**66,601**
3.	**Ekiti**	Ekiti Central	159	477	19,958
		Ekiti East	57	176	8,821

	Ekiti North	64	197	9,100
	Sub-Total	**280**	**850**	**37,879**
	Grand Total	**1,227**	**3,712**	**151,982**

Source: Simple Random Sampling Procedure

Table 3.2 shows that the number of public secondary schools in the three selected southwest states is one thousand, two hundred and twenty seven (1,227). The number of public secondary school Economics teachers is three thousand, seven hundred and twelve (3,712). However, the number of public senior secondary school two students is one hundred and fifty one thousand, nine hundred and eighty two (151,982). Three Southwest states (Lagos, Oyo and Ekiti) would therefore be used for the study. At stage two, the purposeful sampling technique was used to select the public secondary schools in the three selected Southwest states to make up a sample size of three hundred and eight (308) public secondary schools for the study as shown in table 3.3:

Table 3.3: Sampled Public Secondary Schools (n = 308)

S/N	Southwest States	Senatorial Districts	No. of Public Sec. schools	Sampled No. of Public Sec. schools
1.	**Lagos**	Lagos Central	74	19
		Lagos East	88	22
		Lagos West	160	40
		Sub-Total	**322**	**81**
2.	**Oyo**	Oyo Central	244	61
		Oyo North	171	43
		Oyo South	210	53
		Sub-Total	**625**	**157**
3.	**Ekiti**	Ekiti Central	159	40
		Ekiti East	57	14

	Ekiti North	64	16
	Sub-Total	**280**	**70**
	Grand Total	**1,227**	**308**

Source: Proportionate to Size Sampling Procedure

At stage three, the proportionate to size sampling technique would also be used to select 23% of the public secondary school Economics teachers in the three selected Southwest states to make up a sample size of three hundred and eight (308) public secondary schools Economics teachers for the study as shown in table 3.4:

Table 3.4: Sampled Public Secondary School Economics Teachers (n = 854)

S/N	Southwest States	Senatorial Districts	No. of Public sec. sch. Economics Teachers	Sampled No. of Public sec. sch. Economics Teachers
1.	**Lagos**	Lagos Central	225	52
		Lagos East	264	61
		Lagos West	482	111
		Sub-Total	**971**	**224**
2.	**Oyo**	Oyo Central	737	170
		Oyo North	519	119
		Oyo South	635	146
		Sub-Total	**1,891**	**435**
3.	**Ekiti**	Ekiti Central	477	110
		Ekiti East	176	40
		Ekiti North	197	45
		Sub-Total	**850**	**195**
		Grand Total	**3,712**	**854**

Source: Proportionate to Size Sampling Procedure

At stage four, the Taro Yamane (Slovin) sample size determination formula will be used to sample a fraction of public senior secondary school three students to make up a sample size of three thousand, five hundred (3,500) public senior secondary school two Economics students. The formula is shown below:

$$n = \frac{N}{1 + N\,(e)^2}$$

Where n is the needed sample size,

N is the population size from which the sample is to be derived from and

'e' is the level of significance which is 0.05.

Table 3.5 therefore shows the sample number of public senior secondary school three students selected from the population of public senior secondary school two Economics students using the Yamane sample size determination formula.

Table 3.5: Sampled Number of Public SSS2 Students (n = 3,500)

S/N	Southwest States	Senatorial Districts	No. of Public SSS2 students	Sampled No. of Public SSS2 students (Yamane sample size formula)
1.	**Lagos**	Lagos Central	11,250	385
		Lagos East	13,231	389
		Lagos West	23,021	393
		Sub-Total	**47,502**	**1,167**
2.	**Oyo**	Oyo Central	28,243	394
		Oyo North	17,259	390
		Oyo South	21,099	392
		Sub-Total	**66,601**	**1,176**
3.	**Ekiti**	Ekiti Central	19,958	392
		Ekiti East	8,821	382
		Ekiti North	9,100	383
		Sub-Total	**37,879**	**1,157**
		Grand Total	**151,982**	**3,500**

Source: Yamane (Slovin) Sample Size Determination Formula[3]

3.4 Description of Research Instruments

Two self-constructed questionnaires titled: "Class Size and Teacher Factors Questionnaire (CSTFQ)" and "Economics Achievement Test (EAT)" was used to collect data for the study. They both consist of structured items and are described below:

3.4.1 Class Size and Teachers Factor Questionnaire (CSTFQ)

This questionnaire is divided into three sections (A, B and C) and consist of structured items.

Section A is designed to contain demographic information of the Economics teachers such as gender, age, educational qualifications and years of teaching experience.

Section B is designed to examine the level of class size in the public secondary schools. This section consists of five (7) structured items which are framed to determine the class size for the teaching of Economics. The rating scale is based on the four likert scale as follows: Strongly Agree (SA) = 4; Agree (A) = 3; Strongly Disagree (SD) = 2; Disagree (D) = 1.

Section C is designed to examine the level of teacher factors in terms of Teachers' Attitude, Mastery of Subject Matter, Teaching Experience, Educational Qualification and Teaching Styles towards the teaching of Economics in the public secondary schools. The rating scale is also based on the four likert scale as follows: Strongly Agree (SA) = 4; Agree (A) = 3; Strongly Disagree (SD) = 2; Disagree (D) = 1.

3.4.2 Economics Achievement Test (EAT).

This instrument is divided into two sections (A and B) and consists of structured items.

Section A is designed to contain the demographic information of the public senior secondary school students such as gender, age.

Section B consists of twenty five (25) multiple choice questions on Economics based on senior secondary school two first term scheme of work. The questions consist of option A to D for the students to choose from. The rating scale is also based on 0-39=1, 40-49=2, 50-59=3, 60-69=4 and 70 and above =5.

3.5 Validity of the Instrument

The instruments were subjected to the content and face validity type. Content and face validity ensures that the items evaluated on the instruments are in fact representative

and adequate to measure a particular construct. Each item was tested to ensure the item is phrased clearly and properly, as well as to determine if it is applicable to the intended construct. The items were assessed to confirm correct scoring and the instrument scaling are suitable for the content of the construct[4]. Therefore, to carry out the content and face validation, the instruments were shown to experts in the Department of Educational Management at Lead City University, Oyo state for their judgments. After their inputs and necessary corrections, the instruments were shown to the supervisor to make final corrections.

3.6 Reliability of the Instrument

The reliability of the instruments (questionnaires and achievement test) were determined using Cronbach's Alpha and Kuder Richardson – twenty one (KR-21) respectively. Cronbach's alpha is a reliability test procedure that is carried out through pilot testing to ascertain the internal consistency and stability of the items on an instrument[5]. A pilot test was done by administering the questionnaire and achievement test to twenty (20) public senior secondary school three students and fifteen (15) Economics teachers. These teachers and students were not included in the final study. After retrieving the instruments, the items on the instruments were coded and inputted into the Statistical Package for Social Science (SPSS), and Cronbach's Alpha reliability was used to ascertain the internal consistency/stability of the questionnaires while Kuder Richardson – twenty one (KR-21) was used to ascertain the reliability of the achievement test. The Cronbach's Alpha gave reliability coefficients value of .808 while Kuder Richardson – twenty one (KR_{21}) gave a value of .765 for the Economics Achievement Test (EAT). The values were interpreted using psychometric test and they were found to be reliable.

3.7 Administration of Research Instrument and Method of Data Collection

The researcher personally administered the instruments and also with the help of four (4) research assistants so as to make the distribution of the questionnaires easier, faster and less stressful. The researcher sought the permission of the vice principals/teachers of the sampled schools for their approval in the administration of the instruments. The public senior secondary school three students and Economics teachers were given the questionnaires to complete in few minutes and the instruments were retrieved from them after they have responded to the questionnaires.

3.8 Method of Data Analysis

The data collected from the questionnaires were analysed using descriptive and inferential statistical methods. The demographic characteristics of the public senior secondary school three students and Economics teachers were analysed using descriptive statistics such as frequency counts and percentages. Research questions one to three were answered using descriptive statistics such as frequency counts, percentage, mean and standard deviation. Hypotheses one ($H0_1$) and two ($H0_2$) were tested using inferential statistics such as multiple regression at 0.05 level of significance.

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Chapter Four

Results and Discussion of Findings

This chapter presents the results and discussion of findings. Sub-headings in this chapter include:- Instrument Response Rate, Presentation of Data (Demographic Data Analysis, Research Questions and Hypotheses) and Discussion of Findings.

4.1 Instrument Response Rate

Table 4.1: Instrument Response Rate

No.	Name of Questionnaire	Number distributed	Number returned	Number of valid copies	Response Rate
1	**Class Size and Teachers Factor Questionnaire (CSTFQ)**	854	845	840	98.4%
2	**Economics Achievement Test (EAT)**	3,500	3,500	3,500	100%

Source: Fieldwork, 2022

Table 4.1 shows the number of instruments (questionnaire and achievement test) that were distributed, returned and validated for use in the study. The questionnaire was a self-constructed type tagged: "Class Size and Teachers Factor Questionnaire (CSTFQ)". Eight hundred and fifty four (854) "Class Size and Teachers Factor Questionnaire (CSTFQ)" were produced and distributed to public senior secondary school Economics teachers in the three selected states (Lagos, Oyo and Ekiti) in Southwest, Nigeria. Eight hundred and forty five (845) were retrieved while eight hundred and forty (840) were found to be valid and therefore used for the study. The valid questionnaires resulted to a response rate of 98.4% which is very high. Three thousand, five hundred (3,500) Economics Achievement Test (EAT) were produced and distributed to public senior secondary school students in the three selected states (Lagos, Oyo and Ekiti) in Southwest, Nigeria. All the Three thousand, five hundred (3,500) achievement test were retrieved and found to be valid and therefore used for the study. The valid achievement test resulted to a perfect response rate of 100% which is very high.

4.2 Presentation of Data

4.2.1 Demographic Data Analysis

Table 4.2.1.1: Frequency Distribution of Economics Teachers' Demographic Variables

Demographic Variable	Frequency	Percentage

		(n)	(%)
Gender	Male	339	40.4
	Female	501	59.6
	Total	**840**	**100**
Age	20-30 years	104	12.4
	31-40	226	26.9
	41-50	508	60.5
	51-60	2	.2
	Total	**840**	**100**
Highest educational qualifications	NCE	262	31.2
	Bachelor's degree	432	51.4
	PGDE	58	6.9
	Master's degree	79	9.4
	MPhil/Doctorate degree	9	1.1
	Total	**840**	**100**
Years of teaching experience	5-10 years	99	11.8
	11-15 years	94	11.2
	16-20 years	39	4.6
	Above 20 years	608	72.4
	Total	**840**	**100**

Source: Fieldwork, 2022

Table 4.2.1.1 shows the frequency distribution of Economics teachers' demographic variables in public senior secondary schools in southwest states, Nigeria (Lagos, Oyo and Ekiti). Analysis of Economics teachers' gender reveal more female to male Economics teachers as the table shows that 339 (40.4%) are males and 501 (59.6%) are females. The age of the Economics teachers reveals that 104 (12.4%) are within 20-30 years of age, 226 (26.9%) are within 31-40 years of age, 508 (60.5%) are within 41-50 years of age and the remaining 2(0.2%) are within 51-60 years of age. The educational qualification of Economics teachers shows that 262(31.2%) of them have NCE as their highest educational qualification, 432 (51.4%) have Bachelor's degree, 58 (6.9%0 have PGDE, 79 (9.4%) have Master's degree while the remaining 9(1.1%) have MPhil/Doctorate degree as their highest educational qualification. This result implies that majority of the teachers are university graduates. In terms of the teachers' years of teaching experience, 99 (11.8%) of them have within 5-10 years of teaching experience, 94 (11.2%) of them have within 11-15 years of teaching experience, 39 (4.6%) of them

have within 16-20 years of teaching experience while 608 (72.4%) of them have above 20 years of teaching experience. This result implies that most of the Economics teachers are vastly experienced.

Table 4.2.1.2: Frequency Distribution of Public SSS2 Students' Demographic Variables

Demographic Variable		Frequency (n)	Percentage (%)
Gender	Male	1,808	51.7
	Female	1,692	48.3
	Total	**3,500**	**100**
Age	Below 15 years	913	26.1
	15-20	2,005	57.3
	Above 20 years	582	16.6
	Total	**3,500**	**100**

Source: Fieldwork, 2022

Table 4.2.1.2 shows the frequency distribution of public SSS2 students' demographic variables in southwest states, Nigeria (Lagos, Oyo and Ekiti). Analysis of public SSS2 students' gender reveal more male to female students as the table shows that 1,808 (51.7%) are males and 1692 (48.3%) are females. The age of the students reveals that 913 (26.1%) are below 15 years of age, 2005 (57.3%) are within 15-20 years of age and the remaining 582(16.6%) are above 20 years of age. This implies that a major fraction of the students are adolescents.

4.2.2 Answer to Research Questions

Research Question One: What is the level of students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria?

Table 4.2.2.1: Students' Academic Achievement in Economics (n = 3500)

S/N	Questions from the Economics Achievement Test	Freq. that passed it	Freq. that failed it	Mean ($\bar{x}$)	SD	Rem
1	Scale of preference shows_____	695 (19.9%)	2805 (80.1%)	1.199	.399	Fail
2	A major characteristic of natural resources is that they	702 (20.1%)	2798 (79.9%)	1.201	.400	Fail
3	A major disadvantage of a capitalist economy is that it	671 (19.2%)	2829 (80.8%)	1.192	.394	Fail
4	The mining sector of an economy contributes 60% to the Gross Domestic Product(GDP). If the GDP is $540,what is the contribution of the mining sector	601 (17.2%)	2899 (82.8%)	1.172	.377	Fail

5	The increase in the demand for a commodity may lead to a decrease in the demand for another if both are	711 (20.3%)	2789 (79.7%)	1.203	.402	Fail
6	Which of the following factors is not a cause of change in demand? Changes in	658 (18.8%)	2842 (81.2%)	1.188	.391	Fail
7	If the quantity demanded of a commodity increases from 20 units to 30 units when there is an increase in price from $4.00 to $5.00, the elasticity of demand is	597 (17.1%)	2903 (82.9%)	1.171	.376	Fail
8	In perfectly elastic supply, the supply curve	647 (18.5%)	2853 (81.5%)	1.185	.388	Fail
9	An increase in the price of commodity X led to a fall in the supply of commodity Y. Commodities X and Y are	717 (20.5%)	2783 (79.5%)	1.205	.404	Fail
10	The production of rice and yam on the same farmland is an example of	801 (22.9%)	2699 (77.1%)	1.229	.420	Fail
11	A consumer of a single commodity is in equilibrium when	705 (20.1%)	2795 (79.9%)	1.201	.401	Fail
12	A minimum price legislation is also called	671 (19.2%)	2829 (80.8%)	1.192	.394	Fail
13	In manufacturing, division of labour may be hindered by	675 (19.3%)	2825 (80.7%)	1.193	.395	Fail
14	The production cost that varies inversely with output is the	694 (19.8%)	2806 (80.2%)	1.198	.399	Fail
15	A firm that closes down will still incur	713 (20.4%)	2787 (79.6%)	1.204	.403	Fail
16	Cooperative societies are formed mainly to	718 (20.5%)	2782 (79.5%)	1.205	.404	Fail
17	A disadvantage of a joint-stock company is	710 (20.3%)	2790 (79.7%)	1.203	.402	Fail
18	The middleman is responsible for	728 (20.8%)	2772 (79.2%)	1.208	.406	Fail
19	A major function of the retailer is to	824 (23.5%)	2676 (76.5%)	1.235	.424	Fail
20	Which of the following factors may not affect the efficiency of labour	704 (20.1%)	2796 (79.9%)	1.201	.401	Fail
21	The type of unemployment found among workers who leave their jobs in search of other jobs is termed	828 (23.7%)	2672 (76.3%)	1.237	.425	Fail
22	An example of commodity money is	725 (20.7%)	2775 (79.3%)	1.207	.405	Fail
23	If inflation is anticipated, people may	686 (19.6%)	2814 (80.4%)	1.196	.397	Fail
24	If the Central Bank increases its bank rate	752 (21.5%)	2748 (78.5%)	1.215	.411	Fail
25	The use of the bank rate, cash ratio and open market operations constitute	763 (21.8%)	2737 (78.2%)	1.218	.413	Fail
	Criterion Mean = 1.500; Weighted Mean = 1.202; SD = .401; Overall Decision = Fail					

KEY: Freq. = Pass (P) = 2; Fail (1); Freq. = Frequency; SD = Standard Deviation; Rem = Remark;
Threshold mean value of 0.000-1.499 = Fail; 1.500-2.000 = Pass.
Source: Field Work, 2022

Table 4.2.2.1 shows the level of public senior secondary school students' academic achievement in Economics in Southwest, Nigeria. An Economics Achievement Test (EAT) consisting of twenty five multiple choice questions with options A-D was used to ascertain the academic achievement of the students. The students were given twenty (20) minutes to answer the twenty five questions. The responses to the questions from the students were either rated as 'Pass' or 'Fail'. 'Fail' was rated as scores within 0-12 while 'Pass' was rated as scores within 13-25. Pass was coded as 2 while fail was coded as 1. The mean range for fail was within 0.000-1.499 while that for 'pass' was

within 1.500-2.000. The criterion mean was set at 1.500. This meant that values below 1.500 were remarked as 'fail' while values at 1.500 and above were remarked as 'Pass'. The table reveals that most of the students failed all twenty five questions from Economics Achievement Test (EAT). Only few of the students passed all twenty five questions from the test. It was observed that most of the students failed questions on scale of preference, elasticity, demand and supply, commodity, price equilibrium, chain of distribution, inflation, money and banking system and so on and forth. The weighted mean of **1.202,** SD of **(.401)** confirms that the students generally failed the Economics Achievement Test (EAT). This results imply that the students are performing poorly in Economics. In answer to research question one, the level of academic achievement of public senior secondary school students in Economics in Southwest, Nigeria is very low based on the results obtained from the Economics Achievement Test (EAT). This shows that the academic achievement of the public secondary school students in Economics is very poor.

Research Question Two: What is the class size level for the teaching of Economics in public senior secondary schools in Southwest, Nigeria?

Table 4.2.2.2: Class Size Level for the Teaching of Economics (n = 840)

S/N	Items	SA	A	D	SD	Mean ($\bar{x}$)	Std. Dev.	Decision
1	Teacher to student ratio is poor in my class	520 (61.9%)	200 (23.8%)	50 (6.0%)	70 (8.3%)	3.393	.927	Agree (Low)
2	Space management is difficult due to class size	530 (63.1%)	300 (35.7%)	10 (1.2%)	-	3.619	.510	Strongly Agree (Very Low)
3	The number of students I	520	149	100	71	3.332	.983	Agree

	have to teach is above 25	(61.9%)	(17.7%)	(11.9%)	(8.5%)			(Low)
4	Managing my class effectively is difficult due to the number of students	620 (73.8%)	63 (7.5%)	57 (6.8%)	100 (11.9%)	3.432	1.047	Agree (Low)
5	The number of resources used for teaching is insufficient for the number of students in my class	635 (75.6%)	68 (8.1%)	38 (4.5%)	99 (11.8%)	3.475	1.024	Agree (Low)
6	Movement around the class is difficult because of large numbers of furniture in the class	620 (73.8%)	64 (7.6%)	56 (6.7%)	100 (11.9%)	3.433	1.046	Agree (Low)
7	Students capitalize on the large nature of the class to make a noise	615 (73.2%)	25 (3.0%)	48 (5.7%)	152 (18.1%)	3.313	1.190	Agree (Low)
	Criterion Mean = 2.500; Weighted Mean = 3.428; SD = .961; Overall Decision = Agree (Low)							

Source: Fieldwork, 2022

Key: SA = Strongly Agree (4), A = Agree (3), D = Disagree (2), SD = Strongly Disagree (1), Std. Dev = Standard Deviation

Mean Threshold: If the mean is 0.000-1.499 = Strongly Disagree (Very High); 1.500-2.499 = Disagree (High); 2.500-3.499 = Agree (Low) and 3.500 to 4.000 = Strongly Agree (Very Low)

Table 4.2.2.2 presents the class size level for the teaching of Economics in public senior secondary schools in Southwest, Nigeria. The rating scale of strongly disagree (1) to strongly agree (4) was used. The criterion mean was set at 2.500 which implies that any mean below 2.500 falls within the section of "disagree" while any mean at 2.500 and above falls within the section of "agree". Seven (7) items were used to determine the class size level for the teaching of Economics in public senior secondary schools in Southwest, Nigeria. All items were positive. Six of the items were remarked "agree" since their means fall within 2.500-3.499. However, one of the item was remarked "strongly agree" since its mean fall within 3.500-4.000. The teachers agreed that teacher to student ratio is poor in their classes, they teach above 25 students which is above the recommended class size, unable to effectively manage the number of students, face the problem of insufficient amount of resources for the number of students in their class, face the

problem of noise from the students due to their large size and difficulty in moving around their class due to large numbers of furniture. The teachers strongly agreed that space management is difficult due to class size. This result implies that the class size level is high which is bad (poor). The weighted mean (SD) of **3.428 (.961)** confirms that the class size level is generally high for the teaching of Economics in public senior secondary schools in Southwest, Nigeria. In answer to research question two, the class size level for the teaching of Economics in public senior secondary schools in Southwest, Nigeria is high which is poor or bad. There is therefore need for the class size level at the study area to be adjusted to the recommended class size.

Research Question Three: What are the level of teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) for the teaching of Economics in public senior secondary schools in Southwest, Nigeria?

Table 4.2.2.3: Level of Teachers' Attitude towards the Teaching of Economics (n = 840)

S/N	Items	SA	A	D	SD	Mean ($\bar{x}$)	Std. Dev.	Decision
1	I have vast knowledge of teaching methods	120 (14.3%)	115 (13.7%)	500 (59.5%)	105 (12.5%)	2.298	.864	Disagree (Low)
2	I value my teaching profession	115 (13.7%)	120 (14.3%)	107 (12.7%)	498 (59.3%)	1.824	1.120	Disagree

								(Low)
3	I display positive emotions in the class	199 (23.7%)	63 (7.5%)	178 (21.2%)	400 (47.6%)	2.073	1.223	Disagree (Low)
4	I have a good feeling about my teaching job	114 (13.6%)	121 (14.4%)	105 (12.5%)	500 (59.5%)	1.820	1.119	Disagree (Low)
5	I allow classroom interactions with the students	199 (23.7%)	60 (7.1%)	79 (9.4%)	502 (59.8%)	1.948	1.271	Disagree (Low)
6	Teaching Economics course energizes me	97 (11.5%)	87 (10.4%)	80 (9.5%)	576 (68.6%)	1.649	1.063	Disagree (Low)
7	Teaching Economics makes me happy	106 (12.6%)	79 (9.4%)	85 (10.1%)	570 (67.9%)	1.668	1.081	Disagree (Low)
8	Teaching Economics course is useful to me	175 (20.8%)	80 (9.5%)	84 (10.0%)	501 (59.6%)	1.916	1.233	Disagree (Low)
Criterion Mean = 2.500; Weighted Mean = 1.900; SD = 1.123; Overall Decision = Disagree (Low)								

Source: Fieldwork, 2022

Key: SA = Strongly Agree (4), A = Agree (3), D = Disagree (2), SD = Strongly Disagree (1), Std. Dev = Standard Deviation

Mean Threshold: If the mean is 0.000-1.499 = Strongly Disagree (Very Low); 1.500-2.499 = Disagree (Low); 2.500-3.499 = Agree (High) and 3.500 to 4.000 = Strongly Agree (Very High)

Table 4.2.2.3 presents the level of teachers' attitude towards the teaching of Economics in public senior secondary schools in Southwest, Nigeria. The rating scale of strongly disagree (1) to strongly agree (4) was used. The criterion mean was set at 2.500 which implies that any mean below 2.500 falls within the section of "disagree" while any mean at 2.500 and above falls within the section of "agree". Eight (8) items were used to determine the teachers' attitude towards the teaching of Economics in public senior secondary schools in Southwest, Nigeria. All items were positive. All of the items were remarked "disagree" since their means fall within 1.500-2.499. The teachers disagreed that they have vast knowledge of teaching methods, value their teaching profession, display positive emotions during teaching, have good feeling about their teaching job, allow classroom interactions with the students, get energized and happy during the teaching of economics and that teaching economics subject is useful to them. This result

implies that the attitude of Economics teachers is poor or negative which is bad. The weighted mean (SD) of **1.900 (1.123)** confirms that the attitude of Economics teachers towards the teaching of Economics in public senior secondary schools in Southwest, Nigeria is generally low or negative. This result suggests that the teachers have unfavourable attitude towards the teaching of Economics subject in the study area.

Table 4.2.2.4: Level of Teachers' Mastery of Subject Matter for the Teaching of Economics

S/N	Items	SA	A	D	SD	Mean ($\bar{x}$)	Std. Dev.	Decision
1	I respond clearly to questions asked in class	106 (12.7%)	176 (21.0%)	405 (48.4%)	150 (17.9%)	2.284	.903	Disagree (Low)
2	I am able to relate content of Economics to real-life situations and issues	97 (11.5%)	87 (10.4%)	79 (9.4%)	577 (68.7%)	1.648	1.063	Disagree (Low)
3	I provide relevant and useful examples related to Economics content	85 (10.1%)	100 (11.9%)	570 (67.9%)	85 (10.1%)	2.220	.760	Disagree (Low)
4	I provide extensive, interesting facts on the content of Economics to encourage learning	84 (10.0%)	172 (20.5%)	83 (9.9%)	501 (59.6%)	1.808	1.080	Disagree (Low)
5	I provide factual and accurate information on the content of Economics	80 (9.5%)	176 (21.0%)	83 (9.9%)	501 (59.6%)	1.804	1.072	Disagree (Low)
Criterion Mean = 2.500; Weighted Mean = 1.953; SD = .976; Overall Decision = Disagree (Low)								

Source: Fieldwork, 2022

Key: SA = Strongly Agree (4), A = Agree (3), D = Disagree (2), SD = Strongly Disagree (1), Std. Dev = Standard Deviation

Mean Threshold: If the mean is 0.000-1.499 = Strongly Disagree (Very Low); 1.500-2.499 = Disagree (Low); 2.500-3.499 = Agree (High) and 3.500 to 4.000 = Strongly Agree (Very High)

Table 4.2.2.4 presents the level of teachers' mastery of subject matter for the teaching of Economics in public senior secondary schools in Southwest, Nigeria. The rating scale of strongly disagree (1) to strongly agree (4) was used. The criterion mean was set at 2.500 which implies that any mean below 2.500 falls within the section of "disagree" while any mean at 2.500 and above falls within the section of "agree". Five (5) items were used to determine the teachers' mastery of subject matter the teaching of

Economics in public senior secondary schools in Southwest, Nigeria. All items were positive. All of the items were remarked "disagree" since their means fall within 1.500-2.499. The teachers disagreed that they respond very clearly to questions asked in class, able to relate content of Economics to real-life situations and issues, provide relevant and useful examples related to Economics content, provide extensive, interesting facts on the content of Economics to encourage learning and provide factual and accurate information on the content of Economics. This result implies that the Economics teachers have poor mastery of subject matter in Economics which is low. The weighted mean (SD) of **1.953 (.976)** confirms that the teachers' mastery of subject matter for the teaching of Economics in public senior secondary schools in Southwest, Nigeria is generally poor which is low.

Table 4.2.2.5: Level of Teachers' Experience for the Teaching of Economics

S/N	Items	SA	A	D	SD	Mean ($\bar{x}$)	Std. Dev.	Decision
1	I have been teaching economics for several years as a teacher	120 (14.3%)	115 (13.7%)	500 (59.5%)	105 (12.5%)	2.298	.864	Disagree (Low)
2	I can manage unruly students with ease for effective teaching in the classroom	107 (12.7%)	498 (59.3%)	120 (14.3%)	115 (13.7%)	2.711	.857	Agree (High)
3	I use teaching strategies that has worked over the years that enhances students' understanding of economics	114 (13.6%)	121 (14.4%)	105 (12.5%)	500 (59.5%)	1.820	1.119	Disagree (Low)

4	I can teach economics even without the aid of lesson note	60 (7.1%)	199 (23.7%)	79 (9.4%)	502 (59.8%)	1.782	1.036	Disagree (Low)
5	I have thorough understanding of economics subject by virtue of the number of years I have been working	120 (14.3%)	114 (13.6%)	501 (59.6%)	105 (12.5%)	2.296	.863	Disagree (Low)
	Criterion Mean = 2.500; Weighted Mean = 2.181; SD = .948; Overall Decision = Disagree (Low)							

Source: Fieldwork, 2022

Key: SA = Strongly Agree (4), A = Agree (3), D = Disagree (2), SD = Strongly Disagree (1), Std. Dev = Standard Deviation

Mean Threshold: If the mean is 0.000-1.499 = Strongly Disagree (Very Loe); 1.500-2.499 = Disagree (Low); 2.500-3.499 = Agree (High) and 3.500 to 4.000 = Strongly Agree (Very High)

Table 4.2.2.5 presents the teachers' experience for the teaching of Economics in public senior secondary schools in Southwest, Nigeria. The rating scale of strongly disagree (1) to strongly agree (4) was used. The criterion mean was set at 2.500 which implies that any mean below 2.500 falls within the section of "disagree" while any mean at 2.500 and above falls within the section of "agree". Five (5) items were used to determine the teachers' experience for the teaching of Economics in public senior secondary schools in Southwest, Nigeria. All items were positive. Four of the items were remarked "disagree" since their means fall within 1.500-2.499 while one of the item was remarked "agree" since its mean fall within 2.500-3.499. The teachers disagreed that they have been teaching economics for several years as a professional teacher, use teaching strategies that has worked over the years that enhances students' understanding of economics, can teach economics even without the aid of lesson note and have thorough understanding of economics subject by virtue of the number of years I have been working. However, they agreed that they can manage unruly students with ease for effective teaching in the classroom. This result implies that the Economics teachers have poor experience for the teaching of Economics which is low. The weighted mean (SD) of

2.181 (.948) confirms that the teachers' experience for the teaching of Economics in public senior secondary schools in Southwest, Nigeria is generally poor which is low.

Table 4.2.2.6: Level of Teachers' Educational Qualification for the Teaching of Economics

S/N	Items	SA	A	D	SD	Mean ($\bar{x}$)	Std. Dev.	Decision
1	I have the academic degree/certificate in Economics	500 (59.5%)	121 (14.4%)	105 (12.5%)	114 (13.6%)	3.199	.703	Agree (High)
2	I use instructional materials/resources appropriately to facilitate learning in Economics	120 (14.3%)	117 (13.9%)	498 (59.3%)	105 (12.5%)	2.300	.864	Disagree (Low)
3	I am a genius in the area of teaching Economics	114 (13.6%)	121 (14.4%)	105 (12.5%)	500 (59.5%)	1.820	1.119	Disagree (Low)
4	I am able to provide students with new trends and updates on Economics subject	115 (13.7%)	122 (14.5%)	112 (13.3%)	491 (58.5%)	1.835	1.119	Disagree (Low)
5	I attend to questions correctly when asked in Economics class	492 (58.6%)	112 (13.3%)	121 (14.4%)	115 (13.7%)	3.168	.739	Agree (High)
6	I am well-equipped to provide additional information in Economics to students when required	105 (12.5%)	120 (14.3%)	115 (13.7%)	500 (59.5%)	1.798	1.095	Disagree (Low)
Criterion Mean = 2.500; Weighted Mean = 2.353; SD = .940 Overall Decision = Disagree (Low)								

Source: Fieldwork, 2022

Key: SA = Strongly Agree (4), A = Agree (3), D = Disagree (2), SD = Strongly Disagree (1), Std. Dev = Standard Deviation
Mean Threshold: If the mean is 0.000-1.499 = Strongly Disagree (Very Low); 1.500-2.499 = Disagree (Low); 2.500-3.499 = Agree (High) and 3.500 to 4.000 = Strongly Agree (Very High
)

Table 4.2.2.6 presents the level of teachers' educational qualification for the teaching of Economics in public senior secondary schools in Southwest, Nigeria. The rating scale of strongly disagree (1) to strongly agree (4) was used. The criterion mean was set at 2.500 which implies that any mean below 2.500 falls within the section of "disagree" while any mean at 2.500 and above falls within the section of "agree". Six (6) items were used to determine the teachers' educational qualification for the teaching of

Economics in public senior secondary schools in Southwest, Nigeria. All items were positive. Two (2) items were remarked "agree" since their means fall within 2.500-3.499 while four items were remarked "disagree" since their means fall within 1.500-2.499. The teachers agreed that they have the academic degree/certificate in Economics and attend to questions correctly when asked in Economics class. However, they disagreed that they use instructional materials/resources appropriately to facilitate learning in Economics, genius in the area of teaching Economics, able to provide students with new trends and updates on Economics subject and well-equipped to provide additional information in Economics to students when required. These responses from the teacher may be due to lack or inadequate instructional resources (audio-aids, visual aids and audio-visual aids), ICT and library resource in many of the public secondary schools in Southwest, Nigeria. As such although the teachers are certified in Economics, they are unable to provide students with new trends and updates on the subject. The weighted mean (SD) of **2.353 (.940)** confirms that the teachers' educational qualification for the teaching of Economics in public senior secondary schools in Southwest, Nigeria is generally poor which is low.

Table 4.2.2.7: Level of Teachers' Teaching Styles for the Teaching of Economics

S/N	Items	SA	A	D	SD	Mean ($\bar{x}$)	Std. Dev.	Decision
1	I encourage students to invent and use their own methods	480 (57.1%)	125 (14.9%)	121 (14.4%)	114 (13.6%)	3.156	1.112	Agree (High)
2	I encourage the students to learn through discussing their own ideas in class	470 (56.0%)	125 (14.9%)	131 (15.6%)	114 (13.6%)	3.132	1.115	Agree (High)
3	I ask students to compare different methods for solving questions	495 (58.9%)	110 (13.1%)	115 (13.7%)	120 (14.3%)	3.167	1.128	Agree (High)
4	I expect students to follow	500	115	120	105	3.202	1.095	Agree

	the textbook closely	(59.5%)	(13.7%)	(14.3%)	(12.5%)			(High)
5	I ask students to work in pairs or small groups	500 (59.5%)	113 (13.5%)	122 (14.5%)	105 (12.5%)	3.200	1.096	Agree (High)
6	I prevent students from making mistakes by explaining things carefully	496 (59.0%)	79 (9.4%)	167 (19.9%)	98 (11.7%)	3.158	1.110	Agree (High)
Criterion Mean = 2.500; Weighted Mean = 3.169; SD = 1.109; Overall Decision = Agree (High)								

Source: Fieldwork, 2022

Key: SA = Strongly Agree (4), A = Agree (3), D = Disagree (2), SD = Strongly Disagree (1), Std. Dev = Standard Deviation

Mean Threshold: If the mean is 0.000-1.499 = Strongly Disagree (Very Low); 1.500-2.499 = Disagree (Low); 2.500-3.499 = Agree (High) and 3.500 to 4.000 = Strongly Agree (Very High)

Table 4.2.2.7 presents the level of teachers' teaching styles for the teaching of Economics in public senior secondary schools in Southwest, Nigeria. The rating scale of strongly disagree (1) to strongly agree (4) was used. The criterion mean was set at 2.500 which implies that any mean below 2.500 falls within the section of "disagree" while any mean at 2.500 and above falls within the section of "agree". Six (6) items were used to determine the teachers' teaching styles for the teaching of Economics in public senior secondary schools in Southwest, Nigeria. All items were positive. All the items were remarked "agree" since their means fall within 2.500-3.499. The teachers therefore agreed that they encourage students to invent and use their own methods, encourage the students to learn through discussing their own ideas in class, ask students to compare different methods for solving questions, expect students to follow the textbook closely, ask students to work in pairs or small groups and prevent students from making mistakes by explaining things carefully. This result implies that the Economics teachers have high level of teaching styles. The weighted mean (SD) of **3.169 (1.109)** confirms that the teachers' teaching styles for the teaching of Economics in public senior secondary schools in Southwest, Nigeria is generally good. In answer to research question three, teacher factors such as teachers' attitude, mastery of subject matter, experience and educational qualifications for the teaching of Economics is poor while teachers' teaching styles for

the teaching of Economics is high in public senior secondary schools in Southwest, Nigeria.

4.2.3 Test of Hypotheses

$H_0$1: There will be no significant joint contribution of class size and teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) on students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria

Table 4.2.3.1: Multiple Regression Analysis and Model Summary

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.	Decision
1	Regression	1559.322	6	259.887	9.961	.000	High Significance
	Residual	21732.373	833	26.089			
	Total	23291.695	839				

Model summary

R = .259
R Square = .067
Adjusted R Square = .060
Standard Error of the Estimate = 5.10777

Dependent Variable: Students' academic achievement in Economics
Predictors: (Constant), teachers teaching style, teachers attitude, class size, teachers educational qualification, teachers mastery of subject matter, teachers experience
Source: Fieldwork, 2022
F-value is significant at 0.05*

Table 4.2.3.1 shows the model summary and coefficients of multiple regression analysis for the joint contribution of class size and teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) on students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria. It is revealed from the table that there is a high significant joint contribution of class size and teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) on students' academic

achievement in Economics in public senior secondary schools in Southwest, Nigeria ($F_{6, 833} = 9.961$, $P<0.05$). This suggests that the model 1 is a good fit of the data. The above results imply that class size and teacher factors jointly predict students' academic achievement in Economics. The model summary ($R = .259$; $R^2 = .067$; Adjusted $R^2 = .060$; standard error of the estimate = 5.10777) shows that a variability of 6.0% (adjusted $R^2 = .060$) in students' academic achievement in Economics can be explained by class size and teacher factors (independent variables) which are to keep in the model. The remaining 96.0% of the variation is caused by factors other than the predictors included in this model. The little discrepancy between the R^2 value and adjusted R^2 value (.067-.060 = .007) also indicates a good fit of the model. The model summary also shows a high standard error of 5.10777 which cannot be easily ignored.

$H_0$2: There will be no significant relative influence of class size and teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) on students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria

Table 4.2.3.2: Coefficients of Multiple Regression Analysis

	Coefficients				
Model	Unstandardized Coefficients		Standardized Coefficients	T	Significant value
	B	Standard	Beta		

			Error			
1	(Constant)	26.399	1.278		20.656	.000
	Class size	-.102	.041	-.084	-2.475	.014*
	Teachers attitude	.212	.043	.179	4.960	.000*
	Teachers mastery of subject matter	.206	.085	.157	2.423	.016*
	Teachers experience	-.092	.127	-.066	-.723	.470
	Teachers educational qualification	.089	.072	.102	1.235	.217
	Teachers teaching style	.174	.032	.216	5.383	.000*

Dependent Variable: Students' academic achievement in Economics

Source: Fieldwork, 2022; *Beta Coefficients significant at P<0.05

Table 4.2.3.2 shows the coefficients of multiple regression analysis for the relative influence of class size and teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) on students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria. The table shows that the beta coefficient (β) and t- values for class size (Beta = -.084; t = -2.475; Significance = .014), teachers' attitude (Beta = .179; t = 4.960; Significance = .000), teachers' mastery of subject matter (Beta = .157; t = 2.423; Significance = .016) and teachers' teaching styles (Beta = .216; t = 5.383; Significance = .000) are relatively significant at P<0.05. However, teachers' experience (Beta = -.066; t = -.723; Significance = .470) and teachers' educational qualifications (Beta = .102; t = 1.235; Significance = .217) were not relatively significant on students' academic achievement in Economics at P>0.05. This result indicates that with class size, teachers' attitude, teachers' mastery of subject matter and teachers' teaching styles in the model, teachers' experience and educational qualification no more add any substantial contribution to explaining students' academic achievement in Economics.

Beta coefficient values are useful for comparing the relative strengths of the predictors. This therefore implies that teachers' teaching style (β = .216) is the strongest predictor of students' academic achievement in Economics followed by teachers' attitude (β = .179), teachers' mastery of subject matter (β = .157) and class size (β = -.084). The Unstandardized Coefficients (B) indicate how much the dependent variable varies with an independent variable when all other independent variables are held constant. It provides the expected change in the criterion variable (students' academic achievement in Economics) for a one-unit increase in the independent variable. When the values of Unstandardized Coefficients (B) for the predictors is positive, it suggests that a one-unit increase in the predictor or independent variable would result to an average increase in the dependent variable. However, when the values of Unstandardized Coefficients (B) for the predictors is negative, it suggests that a unit increase in the predictor would result to an average decrease in the dependent variable.

According to the values of Unstandardized Coefficients (B) for the predictors, it would imply that a one-unit increase in class size level caused a reduction (the negative sign of the coefficient) in students' academic achievement in Economics by a score of 0.102. A one-unit increase in teachers' attitude caused an increase (the positive sign of the coefficient) in students' academic achievement in Economics by a score of 0.212. A one-unit increase in teachers' mastery of subject matter caused an increase (the positive sign of the coefficient) in students' academic achievement in Economics by a score of 0.206. However, a one-unit increase in teachers' experience caused a reduction (the negative sign of the coefficient) in students' academic achievement in Economics by a score of just 0.092. A one-unit increase in teachers' educational qualification caused an increase (the positive sign of the coefficient) in students' academic achievement in Economics by a score of just 0.089. Lastly, a one-unit increase in teachers' teaching styles caused an

increase (the positive sign of the coefficient) in students' academic achievement in Economics by a score of 0.174. The small standard error values for each of the significant predictors indicates greater precision since the error values are small.

4.3 Discussion of Findings

This study was carried out to class size and teacher factors as determinants of academic achievement of students in economics in public secondary schools in Southwest, Nigeria. This section presents this discussion of the results relating it with previous studies. The frequency distribution of Economics teachers' demographic variables reveal more female to male Economics teachers as the table shows that 339 (40.4%) are males and 501 (59.6%) are females. Most of the teachers, 508 (60.5%) are within 41-50 years of age. Majority of them, 432 (51.4%) have Bachelor's degree and a major fraction of them, 608 (72.4%) have above 20 years of teaching experience. This result completely agrees with the work on "The Effect to Teaching Method of Economics on Student Performance: A Case Study of Selected Secondary Schools in Ojo Local Government Area, Lagos State, Nigeria which revealed that most Economics teachers are females within ages of 40-55 years, have Bachelor's degree and above 13 years of teaching experience[1]. The result also corroborates that of the work on "Influence of Teacher Features on Instructional Quality in Public Secondary Schools in the South-West, Nigeria" which also noted that most teachers including Economics teachers are females, have first degree (Bachelors) and above 10 years of educational experience[2]. These results are similar because they were both carried out in Southwest Nigeria.

Demographic analysis of public SSS2 students' gender revealed more male to female students. The age of the students reveals that most of the students, 2005 (57.3%) are within 15-20 years of age. This finding partially agrees with the work on "Psychological Well-Being of Adolescents in South Western Nigeria: Its Association

with Socio-demographic Characteristics and Perceived Food Insecurity" which revealed that most of the students are females but within 15-20 years of age[3].

Research question one shows that the level of academic achievement of public senior secondary school students in Economics in Southwest, Nigeria is very low based on the results obtained from the Economics Achievement Test (EAT). This shows that the academic achievement of the public secondary school students in Economics is very poor. This result is quite similar to that of a work on "Provision and Utilisation of Facilities and Public Senior Secondary School Students' Academic Achievement in Lagos State Education District V" which was carried out in the year 2021 and showed lower than average performance of students in various subjects including Economics in Lagos State[4]. This result is similar to that of the present study probably because it was carried out recently and in Southwest, Nigeria.

Research question two shows that the class size level for the teaching of Economics in public senior secondary schools in Southwest, Nigeria is high which is poor or bad. This result is in line with the work carried out on "Class Size and Teaching Experience as Predictors of Achievement in Senior Secondary School Physics in Oyo State, Nigeria" which revealed poor class size in the State[5]. Another study also confirms the result. The study was carried out on "Effects of Class Size on Students' Attitude and Academic Performance in English Language among Secondary School Students in Ado Local Government, Ekiti State" and revealed higher than the recommended class sizes in public secondary schools in the State[6]. These results are similar because they were all carried out in similar Southwest States (Oyo and Ekiti).

Research question three shows that teacher factors such as teachers' attitude, mastery of subject matter, experience and educational qualifications for the teaching of Economics is poor while teachers' teaching styles for the teaching of Economics is good

in public senior secondary schools in Southwest, Nigeria. This result partially disagrees with a work on "Teachers' pedagogical competence as determinants of students' attitude towards basic science in South West Nigeria" which reported that teachers' attitude, mastery of subject matter, experience and teaching styles are good except their educational qualifications[7]. Although the two studies were both carried out in Lagos, Oyo and Ekiti States in southwest Nigeria, the former study was carried out in the year 2019 whereas this study was carried out in the year 2022. The little differences observed in the result could be that there may have been some sort of decline in the teachers' characteristics from the year 2019 to the year 2022. The findings of the study also disagreed with the result of a work on "Demographic Indices as Predictor of Science Teachers' Job Commitment in Secondary Schools in Ogun State, Nigeria" which revealed that science teachers' teaching experience and teaching competence (educational qualification, teaching styles and qualification) are good[8]. The differences observed in the studies could be that the previous study was carried out in Ogun State in Southwest Nigeria whereas this study was carried out in Lagos, Oyo and Ekiti States all in Southwest Nigeria.

Hypothesis one shows a high significant joint contribution of class size and teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) on students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria ($F_{6,\ 833} = 9.961$, $P<0.05$). This finding corroborates that of a study carried out on "Teacher Qualifications, Class Size and Teaching Experience as Predictors of Achievement in Senior Secondary School Physics in Oyo State, Nigeria" which showed joint contribution of class size and teacher factors such as teachers' qualifications, experience and mastery of subject matter on students'

academic achievement in Oyo State[5]. Similarities observed in both studies could be because both were carried out in the Southwest region of Nigeria (Oyo State).

Hypothesis two shows the beta coefficient (β) and t- values for class size (Beta = -.084; t = -2.475; Significance = .014), teachers' attitude (Beta = .179; t = 4.960; Significance = .000), teachers' mastery of subject matter (Beta = .157; t = 2.423; Significance = .016) and teachers' teaching styles (Beta = .216; t = 5.383; Significance = .000) are relatively significant at P<0.05. However, teachers' experience (Beta = -.066; t = -.723; Significance = .470) and teachers' educational qualifications (Beta = .102; t = 1.235; Significance = .217) were not relatively significant on students' academic achievement in Economics at P<0.05. The finding is supported by that of a work on "The Effect to Teaching Method of Economics on Student Performance: A Case Study of Selected Secondary Schools in Ojo Local Government Area, Nigeria" which revealed that teaching method or style of teachers significantly determine students' academic performance in Economics in Lagos State, Southwest, Nigeria[1]. A study on "Teacher Qualifications, Class Size and Teaching Experience as Predictors of Achievement in Senior Secondary School Physics in Oyo State, Nigeria" showed a relative significant influence of class size on students' academic achievement in Physics in Oyo State, Southwest, Nigeria. The finding is also in line with the work on "Teachers' Qualification, Attitude and Mastery of Content as Correlates of Students' Academic Achievement in Economics in Lagos State, Nigeria" which revealed that teachers' attitude and mastery of content significantly correlates with students' academic achievement in Economics while teachers' qualification had no significant correlation with students' academic achievement in Economics in Lagos State, Southwest, Nigeria[9]. Similarities observed in both studies could be because both were carried out in the Southwest region of Nigeria (Lagos and Oyo States).

Endnotes

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Chapter Five

Conclusion

This chapter presents the summary of findings, conclusion and recommendations based on the findings, contribution to knowledge and suggested area for further research.

5.1 Summary of Findings

This research examined class size and teacher factors as determinants of academic achievement of students in economics in public secondary schools in Southwest, Nigeria. The frequency distribution of Economics teachers' demographic variables showed that most of them, 501 (59.6%) are females, 508 (60.5%) are within 41-50 years of age. Majority of them, 432 (51.4%) have Bachelor's degree and a major fraction of them, 608 (72.4%) have above 20 years of teaching experience. Demographic analysis of public SSS2 students' gender revealed more male to female students. The age of the students reveals that most of the students, 2005 (57.3%) are within 15-20 years of age. Findings from research question one revealed poor level of academic achievement of public senior secondary school students in Economics ($\bar{x}$= 1.202).

Findings from research question two revealed that the class size level for the teaching of Economics in the public senior secondary schools in Southwest, Nigeria is high which is poor or bad ($\bar{x}$= 3.428). Findings from research question three revealed poor level of teacher factors such as teachers' attitude ($\bar{x}$= 1.900), teachers' mastery of subject matter ($\bar{x}$= 1.953), teachers' experience ($\bar{x}$= 2.181) and teachers' educational qualification ($\bar{x}$= 2.353) but good level of teachers' teaching styles ($\bar{x}$= 3.169).

Findings from hypothesis one revealed a high significant joint contribution of class size and teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) on students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria ($F_{6, 833}$ = 9.961, P<0.05). Findings from hypothesis two shows that the beta coefficient (β) and t- values for class size (Beta = -.084; t = -2.475; Significance = .014), teachers' attitude (Beta = .179; t = 4.960; Significance = .000), teachers' mastery of subject matter (Beta = .157; t = 2.423; Significance = .016) and teachers' teaching styles (Beta = .216; t = 5.383; Significance = .000) are relatively significant at P<0.05. However, teachers' experience

(Beta = -.066; t = -.723; Significance = .470) and teachers' educational qualifications (Beta = .102; t = 1.235; Significance = .217) were not relatively significant on students' academic achievement in Economics at P>0.05.

5.2 Conclusion

This research examined class size and teacher factors as determinants of academic achievement of students in economics in public secondary schools in Southwest, Nigeria. The findings revealed poor level of academic achievement of public senior secondary school students in Economics. It also showed that high class size level for the teaching of Economics which is poor or bad. It also revealed poor level of teacher factors such as teachers' attitude, teachers' mastery of subject matter, teachers' experience and teachers' educational qualification but good level of teachers' teaching styles.

The findings also showed a high significant joint contribution of class size and teacher factors (attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) on students' academic achievement in Economics in public senior secondary schools in Southwest, Nigeria. Lastly, it revealed that class size, teachers' attitude, teachers' mastery of subject matter and teachers' teaching styles have relative significant influence on students' academic achievement in Economics while teachers' experience and teachers' educational qualifications were not relatively significant on students' academic achievement in Economics in Southwest, Nigeria public senior secondary schools.

On the basis of the results, it can be concluded that the high (poor) level of class size and poor level of teachers' attitude, teachers' mastery of subject matter and teachers' teaching styles are the cause of poor level of academic achievement of the students in Economics in public senior secondary schools in Southwest, Nigeria. It can also be concluded that although Economics teachers' experience and educational qualifications

were poor, they are not responsible for the poor level of academic achievement of the students in Economics.

5.3 Recommendations

The following recommendations are therefore given on the basis of the findings of the study:

1. Economics as a subject play a vital role in helping students to understand and tackle the economic challenges facing the nation. As such, there is need for more attention to be given to the academic achievement of students in the subject;
2. The level of class size as shown in this study was found to be high and it significantly and negatively affected the academic achievement of students in the subject. There is therefore the need for educational stakeholders to do all within their powers to bring the level of class size in the public secondary schools to the recommended level.
3. Economics teachers' factors such as attitude, mastery of subject matter, teaching experience, educational qualification were all found to be poor as shown in this study. Educational stakeholders and school heads should try as much as possible to organize seminars, conferences and symposiums for teachers to improve themselves especially their attitude and mastery of subject matter;
4. Economics teachers who are well experienced and qualified should be recruited to teach at the public secondary school level;
5. Some Economics teachers should be allowed to further their education up the highest level. They should also be given permission to go for courses and trainings across several educational institutions; and
6. Government and educational stakeholders should try as much as possible to ensure that all the needed material resources such as library resource, ICT,

instructional materials like visual, audio and audio-visual aids are provided and adequate. These material resources can help the teachers to better impact the students with what they have learnt and trained to do.

5.4 Contribution to Knowledge

This study has contributed to knowledge conceptually by providing a better insight to useful concepts and constructs (such as academic achievement, Economics, class size, attitude, mastery of subject matter, teaching experience, educational qualification, and teaching styles) that were used in the study beyond that used in previous studies. Two theories were used in this study. They are:- Pritchard's Theory of Class Size and Education Function Theory. This study contributed theoretically by providing other useful and relevant application of the above theories to this study than that used in previous studies.

Pritchard's Theory of Class Size is relevant in that it shows the importance of class size in determining the academic achievement of students in Economics subject. The class size can determine how effective the teachers would be in disseminating knowledge to the students. A large class size could produce lots of disruptions that can affect the quality of a lesson. However, a smaller class size can reduce disruptions that can affect learning outcomes of the students. Education Function Theory depicts the role of characteristics and attributes of teachers' inputs such as teachers' mastery of subject content, attitude, qualification and experience in determining outputs in terms of students' learning outcomes and achievement in Economics. Lastly, the study has contributed to knowledge empirically by revealing a significant joint and relative influence of predictors (such as class size and teacher factors) on dependent variables (such as students' academic achievement in Economics).

5.5 Suggested Area of Further Studies

In further studies, qualitative research methods which involve the use of interviews and focus group discussions can be employed to confirm the findings from this study. Research designs such as correlational, ex post-facto and so on and forth can be used in further studies. Demographic characteristics of the students can be used as moderating or intervening variables in further studies. Other educational sectors (population) such as primary school sector (pupils) or university sector (undergraduates) can be used in subsequent studies.

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Appendix I

Appendix I (Research Instruments)

Research Questionnaire I

Department of Educational Management,

Lead City University,

Ibadan, Oyo State.

23rd August, 2022.

Dear Respondent,

Subject: Request to Participate in a Research

Am a PhD student at the above mentioned university and am investigating the extent to which the size of a class and variables of teachers might be affecting students' performance in Economics. Please, your sincere response to the attached questionnaire is useful for this investigation. Thank you in advance for your kind cooperation. Your cooperation is highly needed.

Yours Faithfully,

Adesope, Akinola Olusegun.

SECTION A: Demographic Information of Economics Teachers

1. **Gender:** Male [ ] Female [ ]
2. **Age:** 20-30 years [ ], 31-40 [ ], 41-50 [ ], 51-60 years [ ], 61 years and above [ ]
3. **Highest educational qualifications:** NCE [ ], Bachelor's degree [ ], PGDE [ ], Master's Degree [ ], MPhil/Doctorate Degree [ ]
4. **Years of experience:** 1-5 [ ], 5-10 [ ], 10-15 [ ], 16-20 [ ], 20 years and above [ ]

SECTION B: Class Size in the Schools

For each statement, please tick (√) the appropriate box in front of the statements that describe your opinion (Tick (√).

Key: Strongly Agree (SA) = 4; Agree (A) = 3; Strongly Disagree (SD) = 2; Disagree (D) = 1

		4	3	2	1
S/N	**Items**	**SA**	**A**	**D**	**SD**
	Class Size				
1	Teacher to student ratio is poor in my class				
2	Space management is difficult due to class size				
3	The number of students I have to teach is above 25				
4	Managing my class effectively is difficult due to the number of students				
5	The number of resources used for teaching is insufficient for the number of students in a class				
6	Movement around the class is difficult large numbers of				

	furniture in the class				
7	Students capitalize on the large nature of the class to make a noise				

Section C: Teacher Factors

		4	**3**	**2**	**1**
S/N	**Items**	**SA**	**A**	**D**	**SD**
	Attitude towards teaching				
1	I have vast knowledge of teaching methods				
2	I value my teaching profession				
3	I display positive emotions in the class				
4	I have a good feeling about my teaching job				
5	I avoid classroom interactions with the students				
6	Teaching Economics course wearies me				
7	Teaching Economics makes me upset				
8	Teaching Economics course is useful to me				

		4	**3**	**2**	**1**
S/N	**Items**	**SA**	**A**	**D**	**SD**
	Mastery of Subject Matter				
9	I respond clearly to questions asked in class				
10	I am able to relate content of Economics to real-life situations and issues				
11	I provide relevant and useful examples related to Economics content				
12	I provide extensive, interesting facts on the content of Economics to encourage learning				
13	I provide factual and accurate information on the content of Economics				
	Teaching Experience				

14	I have been teaching economics for several years as a teacher				
15	I can manage unruly students with ease for effective teaching in the classroom				
16	I use teaching strategies that has worked over the years that enhances students' understanding of economics				
17	I can teach economics even without the aid of lesson note				
18	I have thorough understanding of economics subject by virtue of the number of years I have been working				
	Educational Qualification				
19	I have the academic degree/certificate in Economics				
20	I use instructional materials/resources appropriately to facilitate learning in Economics				
21	I am not a novice in the area of teaching Economics				
22	I am able to provide students with new trends and updates on Economics subject				
23	I attend to questions correctly when asked in Economics class				
24	I am well-equipped to provide additional information in Economics to students when required				
	Teaching Styles				
25	I encourage students to invent and use their own methods				
26	I encourage the students to learn through discussing their own ideas in class				
27	I ask students to compare different methods for solving questions				
28	I expect students to follow the textbook closely				
29	I ask students to work in pairs or small groups				
30	I prevent students from making mistakes by explaining things carefully				

Economics Achievement Test (EAT) **Class: SS2** **Time: 20** minutes

Section A: Bio-data

1. **Gender:** Male ( ), Female ( )
2. **Age:** Below 15 years ( ), 15 – 20 years ( ), Above 20 years ( )
3. School: _____

Section B:

Instruction: Circle (O) the appropriate answer from the options A-D. Give only one answer to each question.

1. Scale of preference shows

A. incomes of a consumers in order of size.

B. utilities enjoyed by consumers.

C. opportunity cost of goods consumed.

D. consumers' wants in order of priority.

2. A major characteristic of natural resources is that they

A. are unlimited in supply.
B. have high cost of production.
C. are free gifts of nature.
D. do not command any price.

3. A major disadvantage of a capitalist economy is that it

A. leads to low production of goods and services.
B. requires large number of officials to operate.
C. considers individual consumers'satisfaction.
D. worsens income inequality among the citizens.

4. The mining sector of an economy contributes 60% to the Gross Domestic Product(GDP).If the GDP is $540,what is the contribution of the mining sector?

A. $ 90.00
B. $ 180.00
C. $ 324.00
D. $350.00

5. The increase in the demand for a commodity may lead to a decrease in the demand for another if both are

A. in complementary demand.
B. of the same quality.
C. in composite demand.
D. in competitive demand.

6. Which of the following factors is not a cause of change in demand? Changes in

A. taste and fashion
B. income distribution
C. price of the commodity
D. the size of the population

7. If the quantity demanded of a commodity increases from 20 units to 30 units when there is an increase in price from $4.00 to $5.00, the elasticity of demand is

A. 0.50.

B. 0.65.
C. 2.00.
D. 2.50.

8. In perfectly elastic supply, the supply curve

A. is vertical.
B. is horizontal.
C. slopes upward.
D. slopes downward.

9. An increase in the price of commodity X led to a fall in the supply of commodity Y. Commodities X and Y are

A. competitive goods.
B. composite goods.
C. jointly supplied.
D. derived goods.

10. The production of rice and yam on the same farmland is an example of

A. joint supply.
B. composite supply.
C. competitive supply.
D. market supply.

11. A consumer of a single commodity is in equilibrium when

A. he can equate his demand with price.
B. he equates marginal utility and price.
C. he can equate his marginal and total utilities.
D. his marginal utility is equal to zero.

12. A minimum price legislation is also called

A. price ceiling.
B. price floor.
C. price control.
D. price mechanism.

13. In manufacturing, division of labour may be hindered by

A. excessive demand for the product.
B. low level of technology.
C. excess supply of labour.
D. increase in the export of goods.

14. The production cost that varies inversely with output is the

A. total fixed cost.
B. marginal cost.
C. average fixed cost.
D. average cost.

15. A firm that closes down will still incur

A. variable cost.
B. fixed cost.
C. total cost.
D. marginal cost.

16. Cooperative societies are formed mainly to

A. assist producers to maximize their profits.
B. encourage thrift and credit among members.
C. promote and maintain the welfare of members.
D. break the monopolies of private companies.

17. A disadvantage of a joint-stock company is

A. unlimited liability.
B. limited liability.
C. lack of continuity when a shareholder dies.
D. limited control in management by shareholders.

18. The middleman is responsible for

A. providing research facilities.
B. purchasing raw materials.
C. designing the product.
D. breaking the bulk.

19. A major function of the retailer is to

A. grant credit to the wholesaler.
B. break bulk and sell products in small units.
C. reduce cost of distribution.
D. generate demand for products through advertisement.

20. Which of the following factors may not affect the efficiency of labour?

A. Education and training
B. Provision of welfare service
C. Race and colour of workforce
D. Quality of other factor inputs

21. The type of unemployment found among workers who leave their jobs in search of other jobs is termed

A. seasonal unemployment.
B. structural unemployment.
C. frictional unemployment.
D. cyclical unemployment.

22. An example of commodity money is

A. currency note.
B. mobile money.
C. cheques.
D. silver.

23. If inflation is anticipated, people may

A. save more money.
B. spend more money.
C. give out more loans.
D. spend less money.

24. If the Central Bank increases its bank rate

A. many banks will shut down their operations.
B. customers will borrow more from banks.
C. the supply of money may be reduced.
D. interest charges by banks will fall.

25. The use of the bank rate, cash ratio and open market operations constitute

A. fiscal policy.
B. monetary policy.
C. import policy. D. export policy.

Appendix II

Computation Results from SPSS Analysis

Teacher to student ratio is poor in my class					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	70	8.3	8.3	8.3
	Disagree	50	6.0	6.0	14.3
	Agree	200	23.8	23.8	38.1
	strongly agree	520	61.9	61.9	100.0
	Total	840	100.0	100.0	

Space management is difficult due to class size					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	10	1.2	1.2	1.2
	Agree	300	35.7	35.7	36.9
	strongly agree	530	63.1	63.1	100.0
	Total	840	100.0	100.0	

The number of students I have to teach is above 25					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	71	8.5	8.5	8.5
	disagree	99	11.8	11.8	20.2
	Agree	150	17.9	17.9	38.1
	strongly agree	520	61.9	61.9	100.0
	Total	840	100.0	100.0	

Managing my class effectively is difficult due to the number of students					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	100	11.9	11.9	11.9
	disagree	57	6.8	6.8	18.7
	Agree	63	7.5	7.5	26.2
	strongly agree	620	73.8	73.8	100.0
	Total	840	100.0	100.0	

The number of resources used for teaching is insufficient for the number of students in my class					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	99	11.8	11.8	11.8
	disagree	38	4.5	4.5	16.3
	Agree	68	8.1	8.1	24.4
	strongly agree	635	75.6	75.6	100.0
	Total	840	100.0	100.0	

Movement around the class is difficult because of large numbers of furniture in the class					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	100	11.9	11.9	11.9
	disagree	56	6.7	6.7	18.6
	Agree	64	7.6	7.6	26.2
	strongly agree	620	73.8	73.8	100.0
	Total	840	100.0	100.0	

Students capitalize on the large nature of the class to make a noise					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	152	18.1	18.1	18.1
	disagree	48	5.7	5.7	23.8
	Agree	25	3.0	3.0	26.8
	strongly agree	615	73.2	73.2	100.0
	Total	840	100.0	100.0	

Descriptive Statistics						
	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Teacher to student ratio is poor in my class	840	1.00	4.00	3.3929	.03197	.92660	.859
Space management is difficult due to class size	840	2.00	4.00	3.6190	.01759	.50985	.260
The number of students I have to teach is above 25	840	1.00	4.00	3.3321	.03391	.98277	.966
Managing my class effectively is difficult due to the number of students	840	1.00	4.00	3.4321	.03613	1.04723	1.097

The number of resources used for teaching is insufficient for the number of students in my class	840	1.00	4.00	3.4750	.03533	1.02384	1.048
Movement around the class is difficult because of large numbers of furniture in the class	840	1.00	4.00	3.4333	.03610	1.04617	1.094
Students capitalize on the large nature of the class to make a noise	840	1.00	4.00	3.3131	.04107	1.19027	1.417
Valid N (listwise)	840						

I have vast knowledge of teaching methods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	105	12.5	12.5	12.5
	disagree	500	59.5	59.5	72.0
	Agree	115	13.7	13.7	85.7
	strongly agree	120	14.3	14.3	100.0
	Total	840	100.0	100.0	

I value my teaching profession

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	498	59.3	59.3	59.3
	disagree	107	12.7	12.7	72.0
	Agree	120	14.3	14.3	86.3
	strongly agree	115	13.7	13.7	100.0
	Total	840	100.0	100.0	

I display positive emotions in the class

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	400	47.6	47.6	47.6
	disagree	178	21.2	21.2	68.8
	Agree	63	7.5	7.5	76.3
	strongly agree	199	23.7	23.7	100.0
	Total	840	100.0	100.0	

I have a good feeling about my teaching job

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	500	59.5	59.5	59.5
	disagree	105	12.5	12.5	72.0
	Agree	121	14.4	14.4	86.4
	strongly agree	114	13.6	13.6	100.0
	Total	840	100.0	100.0	

I allow classroom interactions with the students

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	502	59.8	59.8	59.8
	disagree	79	9.4	9.4	69.2
	Agree	60	7.1	7.1	76.3
	strongly agree	199	23.7	23.7	100.0
	Total	840	100.0	100.0	

Teaching Economics course energizes me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	576	68.6	68.6	68.6
	disagree	80	9.5	9.5	78.1
	agree	87	10.4	10.4	88.5
	strongly agree	97	11.5	11.5	100.0
	Total	840	100.0	100.0	

Teaching Economics makes me happy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	570	67.9	67.9	67.9
	disagree	85	10.1	10.1	78.0
	agree	79	9.4	9.4	87.4
	strongly agree	106	12.6	12.6	100.0
	Total	840	100.0	100.0	

Teaching Economics course is useful to me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	501	59.6	59.6	59.6
	disagree	84	10.0	10.0	69.6
	agree	80	9.5	9.5	79.2
	strongly agree	175	20.8	20.8	100.0
	Total	840	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
I have vast knowledge of teaching methods	840	1.00	4.00	2.2976	.02979	.86351	.746
I value my teaching profession	840	1.00	4.00	1.8238	.03863	1.11972	1.254
I display positive emotions in the class	840	1.00	4.00	2.0726	.04219	1.22283	1.495
I have a good feeling about my teaching job	840	1.00	4.00	1.8202	.03860	1.11862	1.251
I allow classroom interactions with the students	840	1.00	4.00	1.9476	.04386	1.27116	1.616
Teaching Economics course energizes me	840	1.00	4.00	1.6488	.03666	1.06264	1.129
Teaching Economics makes me happy	840	1.00	4.00	1.6679	.03730	1.08095	1.168
Teaching Economics course is useful to me	840	1.00	4.00	1.9155	.04253	1.23275	1.520
Valid N (listwise)	840						

I respond clearly to questions asked in class

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	150	17.9	17.9	17.9
	disagree	405	48.4	48.4	66.3
	Agree	176	21.0	21.0	87.3
	strongly agree	106	12.7	12.7	100.0
	Total	837	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
I respond clearly to questions asked in class	837	1.00	4.00	2.2843	.03123	.90343	.816
Valid N (listwise)	837						

I am able to relate content of Economics to real-life situations and issues

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	577	68.7	68.7	68.7
	disagree	79	9.4	9.4	78.1
	agree	87	10.4	10.4	88.5
	strongly agree	97	11.5	11.5	100.0
	Total	840	100.0	100.0	

I provide relevant and useful examples related to Economics content

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	85	10.1	10.1	10.1
	disagree	570	67.9	67.9	78.0
	agree	100	11.9	11.9	89.9
	strongly agree	85	10.1	10.1	100.0
	Total	840	100.0	100.0	

I provide extensive, interesting facts on the content of Economics to encourage learning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	501	59.6	59.6	59.6
	disagree	83	9.9	9.9	69.5
	agree	172	20.5	20.5	90.0
	strongly agree	84	10.0	10.0	100.0
	Total	840	100.0	100.0	

I provide factual and accurate information on the content of Economics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	501	59.6	59.6	59.6
	disagree	83	9.9	9.9	69.5
	agree	176	21.0	21.0	90.5
	strongly agree	80	9.5	9.5	100.0
	Total	840	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
I am able to relate content of Economics to real-life situations and issues	840	1.00	4.00	1.6476	.03667	1.06280	1.130
I provide relevant and useful examples related to Economics content	840	1.00	4.00	2.2202	.02621	.75973	.577
I provide extensive, interesting facts on the content of Economics to encourage learning	840	1.00	4.00	1.8083	.03725	1.07974	1.166
I provide factual and accurate information on the content of Economics	840	1.00	4.00	1.8036	.03700	1.07224	1.150
Valid N (listwise)	840						

I have been teaching economics for several years as a teacher

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	105	12.5	12.5	12.5
	disagree	500	59.5	59.5	72.0
	agree	115	13.7	13.7	85.7
	strongly agree	120	14.3	14.3	100.0
	Total	840	100.0	100.0	

I can manage unruly students with ease for effective teaching in the classroom

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	strongly disagree	115	13.7	13.7	13.7
	disagree	120	14.3	14.3	28.0
	agree	498	59.3	59.3	87.3
	strongly agree	107	12.7	12.7	100.0
	Total	840	100.0	100.0	

I use teaching strategies that has worked over the years that enhances students' understanding of economics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	500	59.5	59.5	59.5
	disagree	105	12.5	12.5	72.0
	agree	121	14.4	14.4	86.4
	strongly agree	114	13.6	13.6	100.0
	Total	840	100.0	100.0	

I can teach economics even without the aid of lesson note

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	502	59.8	59.8	59.8
	disagree	79	9.4	9.4	69.2
	agree	199	23.7	23.7	92.9
	strongly agree	60	7.1	7.1	100.0
	Total	840	100.0	100.0	

I have thorough understanding of economics subject by virtue of the number of years I have been working

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	105	12.5	12.5	12.5
	disagree	501	59.6	59.6	72.1
	agree	114	13.6	13.6	85.7
	strongly agree	120	14.3	14.3	100.0
	Total	840	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance

	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
I have been teaching economics for several years as a teacher	840	1.00	4.00	2.2976	.02979	.86351	.746
I can manage unruly students with ease for effective teaching in the classroom	840	1.00	4.00	2.7107	.02958	.85735	.735
I use teaching strategies that has worked over the years that enhances students' understanding of economics	840	1.00	4.00	1.8202	.03860	1.11862	1.251
I can teach economics even without the aid of lesson note	840	1.00	4.00	1.7821	.03576	1.03637	1.074
I have thorough understanding of economics subject by virtue of the number of years I have been working	840	1.00	4.00	2.2964	.02978	.86323	.745
Valid N (listwise)	840						

I have the academic degree/certificate in Economics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	500	59.5	59.5	59.5
	disagree	105	12.5	12.5	72.0
	agree	121	14.4	14.4	86.4
	strongly agree	114	13.6	13.6	100.0
	Total	840	100.0	100.0	

I use instructional materials/resources appropriately to facilitate learning in Economics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	105	12.5	12.5	12.5
	disagree	498	59.3	59.3	71.8
	agree	117	13.9	13.9	85.7
	strongly agree	120	14.3	14.3	100.0
	Total	840	100.0	100.0	

I am not a novice in the area of teaching Economics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	500	59.5	59.5	59.5
	disagree	105	12.5	12.5	72.0
	agree	121	14.4	14.4	86.4
	strongly agree	114	13.6	13.6	100.0
	Total	840	100.0	100.0	

I am able to provide students with new trends and updates on Economics subject

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	491	58.5	58.5	58.5
	disagree	112	13.3	13.3	71.8
	agree	122	14.5	14.5	86.3
	strongly agree	115	13.7	13.7	100.0
	Total	840	100.0	100.0	

I attend to questions correctly when asked in Economics class

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	492	58.6	58.6	58.6
	disagree	121	14.4	14.4	73.0
	agree	112	13.3	13.3	86.3
	strongly agree	115	13.7	13.7	100.0
	Total	840	100.0	100.0	

I am well-equipped to provide additional information in Economics to students when required

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	500	59.5	59.5	59.5
	disagree	115	13.7	13.7	73.2
	agree	120	14.3	14.3	87.5
	strongly agree	105	12.5	12.5	100.0
	Total	840	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
I have the academic degree/certificate in Economics	840	1.00	4.00	3.1990	.03860	.70321	.611
I use instructional materials/resources appropriately to facilitate learning in Economics	840	1.00	4.00	2.3000	.02981	.86406	.747
I am not a novice in the area of teaching Economics	840	1.00	4.00	1.8202	.03860	1.11862	1.251
I am able to provide students with new trends and updates on Economics subject	840	1.00	4.00	1.8345	.03860	1.11870	1.251
I attend to questions correctly when asked in Economics class	840	1.00	4.00	3.1681	.02836	.73910	.636
I am well-equipped to provide additional information in Economics to students when required	840	1.00	4.00	1.7976	.03777	1.09479	1.199
Valid N (listwise)	840						

I encourage students to invent and use their own methods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	114	13.6	13.6	13.6
	disagree	121	14.4	14.4	28.0
	agree	125	14.9	14.9	42.9
	strongly agree	480	57.1	57.1	100.0
	Total	840	100.0	100.0	

I encourage the students to learn through discussing their own ideas in class					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	114	13.6	13.6	13.6
	disagree	131	15.6	15.6	29.2
	agree	125	14.9	14.9	44.0
	strongly agree	470	56.0	56.0	100.0
	Total	840	100.0	100.0	

I ask students to compare different methods for solving questions					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	120	14.3	14.3	14.3
	disagree	115	13.7	13.7	28.0
	agree	110	13.1	13.1	41.1
	strongly agree	495	58.9	58.9	100.0
	Total	840	100.0	100.0	

I expect students to follow the textbook closely					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	105	12.5	12.5	12.5
	disagree	120	14.3	14.3	26.8
	agree	115	13.7	13.7	40.5
	strongly agree	500	59.5	59.5	100.0
	Total	840	100.0	100.0	

I ask students to work in pairs or small groups					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	105	12.5	12.5	12.5
	disagree	122	14.5	14.5	27.0

	agree	113	13.5	13.5	40.5
	strongly agree	500	59.5	59.5	100.0
	Total	840	100.0	100.0	

I prevent students from making mistakes by explaining things carefully

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	98	11.7	11.7	11.7
	disagree	167	19.9	19.9	31.5
	agree	79	9.4	9.4	41.0
	strongly agree	496	59.0	59.0	100.0
	Total	840	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
I encourage students to invent and use their own methods	840	1.00	4.00	3.1560	.03835	1.11152	1.235
I encourage the students to learn through discussing their own ideas in class	840	1.00	4.00	3.1321	.03846	1.11461	1.242
I ask students to compare different methods for solving questions	840	1.00	4.00	3.1667	.03890	1.12754	1.271
I expect students to follow the textbook closely	840	1.00	4.00	3.2024	.03777	1.09479	1.199

I ask students to work in pairs or small groups	840	1.00	4.00	3.2000	.03783	1.09632	1.202
I prevent students from making mistakes by explaining things carefully	840	1.00	4.00	3.1583	.03830	1.11011	1.232
Valid N (listwise)	840						

Scale of preference shows_____

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2805	80.1	80.1	80.1
	Pass	695	19.9	19.9	100.0
	Total	3500	100.0	100.0	

A major characteristic of natural resources is that they

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2798	79.9	79.9	79.9
	Pass	702	20.1	20.1	100.0
	Total	3500	100.0	100.0	

A major disadvantage of a capitalist economy is that it

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2829	80.8	80.8	80.8
	Pass	671	19.2	19.2	100.0
	Total	3500	100.0	100.0	

The mining sector of an economy contributes 60% to the Gross Domestic Product(GDP). If the GDP is $540,what is the contribution of the mining sector

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2899	82.8	82.8	82.8
	Pass	601	17.2	17.2	100.0
	Total	3500	100.0	100.0	

The increase in the demand for a commodity may lead to a decrease in the demand for another if both are

Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Fail	2789	79.7	79.7	79.7
	Pass	711	20.3	20.3	100.0
	Total	3500	100.0	100.0	

Which of the following factors is not a cause of change in demand? Changes in

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2842	81.2	81.2	81.2
	Pass	658	18.8	18.8	100.0
	Total	3500	100.0	100.0	

If the quantity demanded of a commodity increases from 20 units to 30 units when there is an increase in price from $4.00 to $5.00, the elasticity of demand is

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2903	82.9	82.9	82.9
	Pass	597	17.1	17.1	100.0
	Total	3500	100.0	100.0	

In perfectly elastic supply, the supply curve

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2853	81.5	81.5	81.5
	Pass	647	18.5	18.5	100.0
	Total	3500	100.0	100.0	

An increase in the price of commodity X led to a fall in the supply of commodity Y. Commodities X and Y are

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2783	79.5	79.5	79.5
	Pass	717	20.5	20.5	100.0
	Total	3500	100.0	100.0	

The production of rice and yam on the same farmland is an example of

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Fail	2699	77.1	77.1	77.1
	Pass	801	22.9	22.9	100.0
	Total	3500	100.0	100.0	

A consumer of a single commodity is in equilibrium when

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2795	79.9	79.9	79.9
	Pass	705	20.1	20.1	100.0
	Total	3500	100.0	100.0	

A minimum price legislation is also called

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2829	80.8	80.8	80.8
	Pass	671	19.2	19.2	100.0
	Total	3500	100.0	100.0	

In manufacturing, division of labour may be hindered by

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2825	80.7	80.7	80.7
	Pass	675	19.3	19.3	100.0
	Total	3500	100.0	100.0	

The production cost that varies inversely with output is the

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2806	80.2	80.2	80.2
	Pass	694	19.8	19.8	100.0
	Total	3500	100.0	100.0	

A firm that closes down will still incur

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2787	79.6	79.6	79.6
	Pass	713	20.4	20.4	100.0
	Total	3500	100.0	100.0	

Cooperative societies are formed mainly to					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2782	79.5	79.5	79.5
	Pass	718	20.5	20.5	100.0
	Total	3500	100.0	100.0	

A disadvantage of a joint-stock company is					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2790	79.7	79.7	79.7
	Pass	710	20.3	20.3	100.0
	Total	3500	100.0	100.0	

The middleman is responsible for					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2772	79.2	79.2	79.2
	Pass	728	20.8	20.8	100.0
	Total	3500	100.0	100.0	

A major function of the retailer is to					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2676	76.5	76.5	76.5
	Pass	824	23.5	23.5	100.0
	Total	3500	100.0	100.0	

Which of the following factors may not affect the efficiency of labour					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2796	79.9	79.9	79.9
	Pass	704	20.1	20.1	100.0

	Total	3500	100.0	100.0	

The type of unemployment found among workers who leave their jobs in search of other jobs is termed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2672	76.3	76.3	76.3
	Pass	828	23.7	23.7	100.0
	Total	3500	100.0	100.0	

An example of commodity money is

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2775	79.3	79.3	79.3
	Pass	725	20.7	20.7	100.0
	Total	3500	100.0	100.0	

If inflation is anticipated, people may

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2814	80.4	80.4	80.4
	Pass	686	19.6	19.6	100.0
	Total	3500	100.0	100.0	

If the Central Bank increases its bank rate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2748	78.5	78.5	78.5
	Pass	752	21.5	21.5	100.0
	Total	3500	100.0	100.0	

The use of the bank rate, cash ratio and open market operations constitute

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fail	2737	78.2	78.2	78.2
	Pass	763	21.8	21.8	100.0

	Total	3500	100.0	100.0

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Scale of preference shows_____	3500	1.00	2.00	1.1986	.00674	.39898	.159
A major characteristic of natural resources is that they	3500	1.00	2.00	1.2006	.00677	.40049	.160
A major disadvantage of a capitalist economy is that it	3500	1.00	2.00	1.1917	.00665	.39371	.155
The mining sector of an economy contributes 60% to the Gross Domestic Product(GDP). If the GDP is $540,what is the contribution of the mining sector	3500	1.00	2.00	1.1717	.00638	.37719	.142
The increase in the demand for a commodity may lead to a decrease in the demand for another if both are	3500	1.00	2.00	1.2031	.00680	.40240	.162
Which of the following factors is not a cause of change in demand? Changes in	3500	1.00	2.00	1.1880	.00661	.39077	.153
If the quantity demanded of a commodity increases from 20 units to 30 units when there is an increase in price from $4.00 to $5.00, the elasticity of demand is	3500	1.00	2.00	1.1706	.00636	.37619	.142
In perfectly elastic supply, the supply curve	3500	1.00	2.00	1.1849	.00656	.38824	.151

An increase in the price of commodity X led to a fall in the supply of commodity Y. Commodities X and Y are	3500	1.00	2.00	1.2049	.00682	.40365	.163
The production of rice and yam on the same farmland is an example of	3500	1.00	2.00	1.2289	.00710	.42016	.177
A consumer of a single commodity is in equilibrium when	3500	1.00	2.00	1.2014	.00678	.40112	.161
A minimum price legislation is also called	3500	1.00	2.00	1.1917	.00665	.39371	.155
In manufacturing, division of labour may be hindered by	3500	1.00	2.00	1.1929	.00667	.39460	.156
The production cost that varies inversely with output is the	3500	1.00	2.00	1.1983	.00674	.39877	.159
A firm that closes down will still incur	3500	1.00	2.00	1.2037	.00681	.40282	.162
Cooperative societies are formed mainly to	3500	1.00	2.00	1.2051	.00683	.40386	.163
A disadvantage of a joint-stock company is	3500	1.00	2.00	1.2029	.00680	.40218	.162
The middleman is responsible for	3500	1.00	2.00	1.2080	.00686	.40593	.165
A major function of the retailer is to	3500	1.00	2.00	1.2354	.00717	.42433	.180
Which of the following factors may not affect the efficiency of labour	3500	1.00	2.00	1.2011	.00678	.40091	.161
The type of unemployment found among workers who leave their jobs in search of other jobs is termed	3500	1.00	2.00	1.2366	.00718	.42504	.181
An example of commodity money is	3500	1.00	2.00	1.2071	.00685	.40532	.164
If inflation is anticipated, people may	3500	1.00	2.00	1.1960	.00671	.39703	.158
If the Central Bank increases its bank rate	3500	1.00	2.00	1.2149	.00694	.41078	.169

The use of the bank rate, cash ratio and open market operations constitute	3500	1.00	2.00	1.2180	.00698	.41295	.171
Valid N (listwise)	3500						

Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Class size	840	11.00	28.00	23.9976	.15082	4.37105	19.106
Teachers attitude	840	8.00	30.00	15.1940	.15298	4.43378	19.658
Teachers mastery of subject matter	840	5.00	20.00	9.7595	.13910	4.03138	16.252
Teachers experience	840	5.00	20.00	10.9071	.13113	3.80056	14.444
Teachers educational qualification	840	6.00	24.00	11.3940	.20815	6.03274	36.394
Teachers teaching style	840	6.00	24.00	19.0155	.22586	6.54614	42.852
Students' academic achievement in Economics	3500	25.00	50.00	30.0560	.11363	6.72259	45.193
Valid N (listwise)	840						

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method

1	Teachers teaching style, teachers attitude, class size, teachers educational qualification, teachers mastery of subject matter, teachers experience[b]	. Enter

a. Dependent Variable: students' academic achievement in Economics
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.259[a]	.067	.060	5.10777

a. Predictors: (Constant), teachers teaching style, teachers attitude, class size, teachers educational qualification, teachers mastery of subject matter, teachers experience

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1559.322	6	259.887	9.961	.000[b]
	Residual	21732.373	833	26.089		
	Total	23291.695	839			

a. Dependent Variable: students' academic achievement in Economics
b. Predictors: (Constant), teachers teaching style, teachers attitude, class size, teachers educational qualification, teachers mastery of subject matter, teachers experience

Coefficients[a]

Model	Unstandardized Coefficients	Standardized Coefficients	T	Sig.

		B	Std. Error	Beta		
1	(Constant)	26.399	1.278		20.656	.000
	Class size	-.102	.041	-.084	-2.475	.014
	Teachers attitude	.212	.043	.179	4.960	.000
	Teachers mastery of subject matter	.206	.085	.157	2.423	.016
	Teachers experience	-.092	.127	-.066	-.723	.470
	Teachers educational qualification	.089	.072	.102	1.235	.217
	Teachers teaching style	.174	.032	.216	5.383	.000

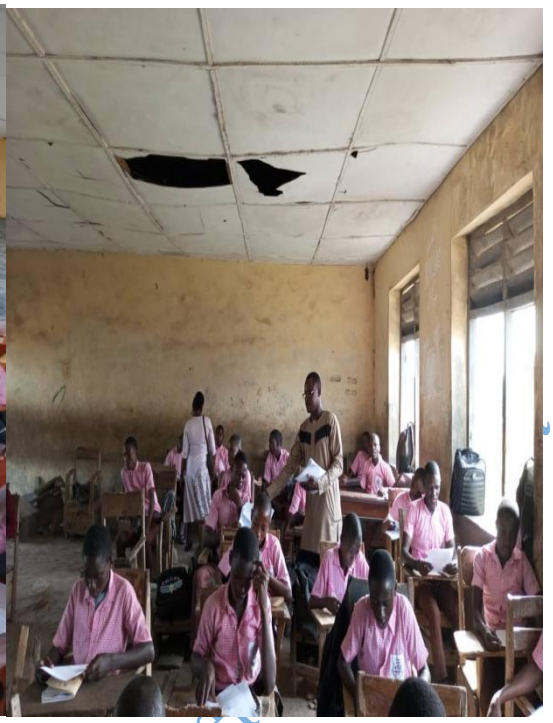
a. Dependent Variable: Students' academic achievement in Economics

Appendix III

Pictures of the Researcher in the Field Distributing Instruments

Researcher and his research assistants distributing achievement test to students

Researcher and his research assistants distributing achievement test to students

Researcher and his research assistants distributing instruments to students/teachers


Researcher and his research assistants distributing instruments to students/teachers

Researcher distributing instruments to students

Researcher distributing instruments to students/teachers

Bio-data

1. **NAME:** ADESOPE Akinola Olusegun
2. **ADDRESS:** Oyo State College of Education, P. M. B. 001, Lanlate, Oyo State
3. **Email:** andrewadesope@gmail.com
4. **DATE OF BIRTH:** 22 March, 1967
5. **NATIONALITY:** Nigerian
6. **MARITAL STATUS:** Married
7. **EDUCATIONAL INSTITUTIONS ATTENDED WITH DATES:**

(i)	St Paul's African Primary School, Lanlate	1973 - 1979
(ii)	Lanlate High School, Lanlate	1980 - 1985
(iii)	Oyo State College of Arts and Science, Ile Ife	1986 - 1987
(iv)	Federal College of Education, Kontagora	1989 - 1992
(v)	University of Ibadan, Ibadan	1996 - 2000
(vi)	University of Ibadan, Ibadan	2001 - 2002
(vii)	Oyo State College of Education, Oyo	2007
(viii)	Lead City University, Ibadan	2019- Till date

8. **ACADEMIC/PROFESSIONAL QUALIFICATIONS WITH DATES:**

(i)	Primary School Leaving Certificate	1979
(ii)	WASC	1987
(iii)	GCE (O/Level)	1990
(iv)	NCE (Economics/Mathematics)	1992
(v)	B.Ed (Educational Management/Economics)	2000
(vi)	M.Ed (Educational Management/Economics of Education)	2002

(vii) Diploma in Computer Studies 2007

9. WORK EXPERIENCE:

9.1 PREVIOUS EMPLOYMENT:

TESCOM, Oyo State. Class Teacher 2000 – 2002

(ii) Oyo State College of Education, Lanlate, Oyo State 2006 to date

JOURNAL ARTICLES:

1. Adeyemo, A. O., Adesope, A. O. & Ajayi, A. (2009). *Teacher education and the millennium development goals in Nigeria.* **COEASU Journal of Multidisciplinary Studies,** 2 (2), 17-29.

2. Adeyemo, A. O., Olorode, O. A. & Adesope, A. O. (2010). *Enhancing meaningful teacher education in Nigeria: The way out.* **COEASU Journal of Contemporary Issues,** 3 (1), 210-215

3. Atanda, A. I., Adesope, A. O. & Adebisi, O. M. (2010). *Review of relevance of private involvement in the provision of secondary school education in Nigeria.* **African Journal of Historical Sciences in Education,** 6 (2), 37-43.

4. Adesope, A. O. (2012). *An overview of issues on successful implementation of Universal Basic Education programme in Nigeria.* **Olumo Journal of Education**, 2(2), 69-79.

5. Adesope, A. O. (2013). *Adequate funding and resource management: Panacea to better learning out-comes in public schools in Nigeria.* **Nigerian Journal of Languages, Arts, Education and Social Sciences,** 4 (1), 106-117.

6. Adesope, A. O., Adeyemo, A. O. & Olorode, O. A. (2013). *Effective strategies for teaching measurement and evaluation in tertiary institutions in Nigeria.* **Nigerian Journal of Languages, Arts, Education and Social Sciences,** 4 (1), 141-150.

7. Adeyemo, A. O., Adesope, A. O. & Olorode, O. A. (2014). *Curriculum reformation and implementation: Catalyst to quality management in primary education system.* **THE PACESETTER,** 18(1),136-141.

8. Olorode, O. A., Adeyemo, A. O. & Adesope, A. O. (2014). *Barriers to the successful integration of Information and Communication Technology in teaching and learning in schools: Way forward.* **International Journal of Special and General Education,** 4, 131-136.

9. Ogundele, A. T., Adesope, A. O. & Obanisola, M. O. (2015). *Environmental education: A pedagogical tool for ameliorating environmental problems in Nigeria*. **International Journal of Special and General Education,** 5, 147-156.

10. Adeyemo, A. O., Adesope, A. O. & Olorode, O. A. (2015). *Effects of teachers efficiency in building and sustaining Nigeria future.* **Olumo Journal of Education,** 3(2), 120-135.

11. Adesope, A. O. (2015). *Effects of class size on classroom management and teacher – pupils interaction in secondary schools in Oyo State.* **JOLASEES: A Multi-disciplinary Research Journal,** 1(1), 23-29.

12. Adesope, A. O., Adekola, A. A. & Oke, A. A. (2016). *Teachers' quality and achievement in vocational and technical education subjects among junior secondary school students in Oyo State, Nigeria*. **Journal of Professional Teacher Trainers**, 11(1), 9-14.

13. Adesope, A. O., Ogunwuyi, O. & Olorode, O. A (2017). *Effects of corporal punishment on learning behaviour and students academic performance in Public Secondary Schools in Ibarapa East Local Government, Oyo State.* **International Journal of Advanced Academic Research,** 3(10), 20-26.

14. Adesope, A. O., Oke, A. A. & Odekunle, A. A. (2018). *Restructuring Nigerian higher education (College of Education) for sustainable development.* **International Journal of Advanced Academic Research,** 4(11), 65-74.

15. Oke, A. A. & Adesope, A. O. (2019). *Impact of quality assurance system on classroom teachers' effectiveness in Ibarapa East Local Government Secondary Schools.* **African Journal of Historical Sciences in Education,** 15(1), 130-138.

16. Adesope, A. O. (2019). *Impacts of educational systems in Nigeria on national development.* **Ibarapa International Journal of Multi-Disciplinary Research and Development,** 4(1), 158-163.

17. Adeyemo, A. O., Olorode, O. A. & Adesope, A. O. (2019). *Leadership styles and motivation as tools for staff efficiency in South-West Colleges of Education, Nigeria.* **Lanlate Journal of Educational Research,** 4(1), 30-37.

18. Adesope, A. O. (2019). *Effects of external environment and structure on leadership accountability in schools in Oyo State*. **Nigerian Journal of Languages, Arts, Education and Social Sciences,** 7(1), 175-188.

19. Adesope, A. O. & Adekola, A. A. (2020). *Re-engineering Nigerian institutions of higher learning in a period of economic and democratic globalization*. **Lanlate Journal of Educational Research,** 5(1&2), 409-416.

20. Adesope, A. O. (2021). *The effect of curriculum changes and innovation on educational improvement.* **Lanlate Journal of Educational Research,** 6(1), 259-269.

21. Adesope, A. O. (2021). *The role of education on national development.* **International Journal of Research in Education and Sustainable Development,** 1(10), 74-80.

22. Adesope, A. O. (2021). *Conflict resolution mechanisms in public secondary schools in Ibarapa Area of Oyo State.* **Ibarapa International Journal of Multi-Disciplinary Research and Development,** 5(1), 153-160.

23. Adesope, A. O. & Odekunle, A. A. (2022*). Education and sustainable national development in Nigeria: Problems and solutions*. **International Journal of Education and Evaluation,** 8(4), 25-30.

24. Olorode, O. A. & Adesope, A. O. (2022). *The role of curriculum in fostering national integration in the 21st century*. **International Journal of Research in Education and Sustainable Development,** 2(8), 49-54.

25. Oke A. O., Ogunwuyi O. & Adesope A. O. (2022). *Drug/Substance abuse and students' academic performances in Ibarapa East Local Government Area of Oyo state senior secondary schools***. Trailblazer International Journal of Educational Research**, 3(1), 1-12.

(e) CHAPTERS IN EDITED BOOKS:

1. Adeyemo, A. O., Falade , A. A. & Adesope, A. O. (2007). *Challenges to successful implementation of Information Communication Technologies in Nigeria's tertiary education.* In J.B. Babalola, G.O. Akpa & A.O. Ayeni (eds.), Managing Technical and Vocational Education in the Era of Globalization. (pp. 175-182). Ibadan: National Association for Educational Administration and Planning.

2. Oke, A. A. & Adesope, A. O. (2013). *A survey of the influence of politics on the implementation of Universal Basic Education Scheme in Nigeria.* In L. A. A. Adeniji, S.A Adeyemo & D.R Adeniji (eds.), Nigerian Democracy In Crisis. (pp. 70-76). Abeokuta: National Association for Promotion of Studies in Religion, Education, Languages and General Studies.

3. Adesope, A.O. (2013). *Causes and effects of students drop-out in secondary schools in Ibarapa East Local Government, Oyo State, Nigeria.* In A. S. Gbadegesin, R. A. Adefabi , B. O. Ogunlola, J. B. Jimoh, S. A. Olaoluwa, O. A. Oyewale & M. O. Falade (eds.), Developmental issues in Ibarapa Region. A multidisciplinary approach. (pp. 44-50). Ibadan: Golden Touch Printing and Publishing.

4. Adesope, A. O. (2015). *Discipline and indiscipline in schools*. In K. A. Salami (Ed.), Principles and practice of school organization and classroom management. (pp. 32 – 37). Lagos: Kingdave Book Publishers.

5. Adesope, A. O. (2015). *The teacher, instructional materials and the learner.* In K. A. Salami (Ed.), Principles and practice of school organization and classroom management. (pp. 46 – 57). Lagos: Kingdave Book Publishers.

6. Tejumola, F. O. & Adesope, A. O. (2017). *Programme Planning in Junior Secondary Schools.* In K.A. Salami (Ed.), Educational Administration, Planning and Supervision of Junior Secondary Education in Nigeria (pp. 99-116). Oyo: Ajibol Golden Links Ventures.

7. Adesope, A.O. & Gbadamosi, R.K. (2017). *Techniques in Educational Supervision.* In K.A. Salami (Ed.), Educational Administration, Planning and Supervision of Junior Secondary Education in Nigeria (pp. 174-181). Oyo: Ajibol Golden Links Ventures.

8. Adeyemo, A. O. & Adesope, A. O. (2020). *Curriculum development strategies for different levels of education*. In T. Okemakinde (Ed.), Basics of Curriculum Studies (Series II) (pp. 26-31). Ibadan: Graceville Publishers.

(f) BOOKS:

1. Afolabi, S. S. & Adesope, A. O. (2010). *General principles, methods and strategies of teaching (A basic text for Colleges & Universities)*. Ibadan: Everlasting Printing Ventures.
2. Lameed, W.O. & Adesope, A. O. (2010). *Elements of educational management*. Ibadan: Awemark Publishers.
3. Adesope, A.O., Adeyemi, A. I., Olorode, O. A. & Tejumola, F. O. (2010). *Measurement and evaluation made simple*. Oyo: Adeniran Printing Press.

9.2.12 ATTENDANCE AT LEARNED CONFERENCES:

1. 1st National COEASU South Zonal Delegate Congress

   Theme: Consolidation of Nigeria's Educational System. Held at The Federal College of Education (Technical) Akoka, Lagos State, between 13 and 16 of November, 2007.

2. 1st Annual Seminar/ Workshop of School of Arts and Social Sciences

   Theme: Paper Writing: The Hallmark of Academics. Held at Emmanuel College of Education Oyo, Lanlate Campus, on 18 of March, 2008.

3. 5th National Conference of Pre-Degree and Foundation Science Unit, Tai Solarin University of Education, Ososa Campus, Ogun State, between 16 and 20 of June, 2008.

4. 3rd National Conference of the Federal College of Education

   Theme: Education and Self-Actualisation. Held at Federal College of Education, Abeokuta, between 7 and 12 of July, 2008.

5. 2nd National Conference of Colleges of Education Academic Staff Union (COEASU) Akoka Chapter

   Theme: Man-Power Development in Nigeria Educational System, Issues and Challenges in the 21st Century. Held at Federal College of Education (Technical) Lagos, between 2 and 5 of June, 2009.

6. 1st School of Education Workshop held at EACOED, Oyo, Lanlate campus, Lanlate, on 25 of November, 2009.

7. 1st National Conference, School of Education

Theme: Sustainable Reforms in Teacher Education in Nigeria. Held at Emmanuel Alayande College of Education, Oyo, between 24 and 26 of April, 2010.

8. 10th Annual Conference of National Association for The Promotion of Studies in Religions, Education, Languages and General Studies (NAPSRELGS). Held at Federal College of Education Osiele, Abeokuta, Ogun State, between 16 and 20 of April, 2012.

9. One Day Workshop

Theme: Academic Staff Development Held at Emmanuel Alayande College of Education, Oyo, Lanlate Campus, on 8 of May, 2012.

10. A2-Day Workshop

Theme: Evolving High Quality Research Proposal and Paper Writing. Held at Emmanuel Alayande College of Education, Oyo, between 10 and 11 of July, 2012.

11. 33rd Annual Convention and International Conference of Nigeria Association for Educational Media and Technology [NAEMT]

Theme: Instructional Delivery Through ICT Tools. Held at Emmanuel Alayande College of Education, Oyo, between 8 and 12 of October, 2012.

12. 11th National Conference of National Association for The Promotion of Studies in Religions, Education, Languages and General Studies (NAPSRELGS)

Theme: Peace: A panacea for National Development. Held at Osun State College of Education Ila Orangun, Osun State, between 15 and 19 of April, 2013.

13. 2nd National Conference of College of Education Academic Staff Union (COEASU), Oyo Chapter

Theme: Centenary Milestone: Teacher Education in Nigeria and National Development. Held at Emmanuel Alayande College of Education, Oyo, between 19 and 22 of August, 2013.

14. 3rd National Conference of Emmanuel Alayande College of Education, Oyo

Theme: Curriculum Issues and National Transformation Beyond the 21st Century in Nigeria. Held at Emmanuel Alayande College of Education, Oyo, between 17 and 20 of February, 2014.

15. National Conference of Association for Research and Development in Languages, Arts, Social Sciences and Education (ARDLASSE)

Theme: Critical Issues in Nigeria's Amalgamation Centenary and Beyond: Matters Arising. Held at Emmanuel Alayande College of Education, Oyo, Lanlate Campus, Lanlate, between 4 and 8 of August, 2014.

16. 2nd Annual Seminar, School of Education held at EACOED, Oyo, Lanlate Campus, Lanlate, between 16 and 17 of December, 2014.

17. Annual Academic Seminar and Conference of School of Vocational and Technical Education. Held at The College of Education, Lanlate between 8 and 9 of December, 2015.

18. Annual Workshop of school of Vocational and Technical Education

Theme: Rudiments of Curriculum Vitae, Seminar Presentation, Writing a Standard Examination Questions and Marking Guide. Held at The College of Education, Lanlate on 9 of December, 2015.

19. 2016 Maiden Conference of School of Arts and Social Sciences

Theme: Arts and Social Sciences and Building of Sustainable Nigeria Future. Held at The College of Education, Lanlate between 14 and 17 of March, 2016.

20. 3rd Annual National Conference of Association for Research and Development in Languages, Arts, Social Sciences and Education (ARDLASSE)

Theme: Peace and Security in sub-Saharan African. Held at Federal College of Education Abeokuta, between 11 and 15 of April, 2016.

21. 1st biannual school seminar, School of Education. Held at the College of Education, Lanlate, between 4 and 5 July, 2017.

22. 9th Annual Ibadan Sustainable Development Summit

Theme: Megatrends that will shape National and Global Prosperity by 2030. Held at the University of Ibadan Centre for Sustainable Development between 27-30, August, 2018.

23. 4th School Seminar. School of General Education. Held at the College of Education, Lanlate between 27 and 28 September, 2018.

24. 15th Annual Conference of Historians of Education Development Society of Nigeria. Held at University of Ilorin between 1 and 5 October, 2018.

25. First Annual Conference of School of General Education, Lanlate.

Theme: Re-engineering Nigeria. Education for Armed Banditry and Sundry Crime Control. Held at the College of Education, Lanlate between 27 and 30 August, 2019.

26. 6th School Seminar. School of General Education. Held at Oyo State College of Education, Lanlate between 21 and 22 September, 2021.

27. 16th Annual National Conference of School of Secondary Education (Arts and Social Sciences Programmes).

Theme: Humanities in the face of Multifaceted Challenges in Nigeria: Implication for Engagement and Survival. Held at Federal College of Education (Special), Oyo between 21 and 25, of February, 2022.

9.2.13 ADMINISTRATIVE EXPOSURE:

i. CONTRIBUTIONS TO DEPARTMENT:

a. Departmental Secretary.

2008 - 2010

b. Member, Social Committee

2008 to date

ii. CONTRIBUTIONS TO SCHOOL:

a. Secretary, Research and Publication Committee

2008 to date

b. Chairman, Results Compilation and Computation Committee

2010 to date

iii. CONTRIBUTIONS TO THE COLLEGE:

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9.2.14 OTHER RELEVANT INFORMATION.

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SIGNATURE **DATE**

The University Compliance Certification

This is to certify that the thesis by Akinola Olusegun ADESOPE in the Department of Arts and Social Science Education, Faculty of Arts and Education, Lead City University, Ibadan, Oyo State is in full compliance with the approved University Format and Style.

Signature Date

Class Size and Teacher Factors as Determinants of Academic Achievement of Students in Economics in Public Secondary Schools in Southwest, Nigeria

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Abstract

It has been observed that students' academic achievement in Economics has not been encouraging. The statistics from West African Examination Council (WAEC) examination results from 2014 to 2021 indicated low percentage performance of students in Economics in Southwest, Nigeria. This may be attributed to various factors. This study investigated Class Size and Teacher Factors as Determinants of Academic Achievement of Students in Economics in Public Secondary Schools in Southwest, Nigeria. Three research questions and two hypotheses guided the study. Study population consisted of Economics teachers (6,855) and SSS2 students (289,132) in public secondary schools in Southwest. 840 teachers and 3500 students used as sample size. Descriptive survey research design was used. A questionnaires tagged – Class Size and Teachers Factor Questionnaire, CSTFQ (α = .808) and an "Economics Achievement Test, EAT (KR_{21} = .765) were used to collect data. Data were analysed using percentage and multiple regrssion. Results revealed poor level of students' academic achievement in Economics ($\bar{x}$ = 1.202), high class size level ($\bar{x}$ = 3.428), poor level of teacher factors such as attitude ($\bar{x}$= 1.900), mastery of subject matter ($\bar{x}$= 1.953), experience ($\bar{x}$= 2.181) and educational qualification ($\bar{x}$= 2.353) but good level of teaching styles ($\bar{x}$= 3.169). Hypotheses revealed significant joint contribution of class size and teacher factors on students' academic achievement in Economics ($F_{6, 833}$ = 9.961, P<0.05). It also revealed that class size (Beta = -.084; t = -2.475), teachers' attitude (Beta = .179; t = 4.960), mastery of subject matter (Beta = .157; t = 2.423) and teaching styles (Beta = .216; t = 5.383) are relatively significant at P<0.05 while teachers' experience (Beta = -.066; t = -.723) and educational qualifications (Beta = .102; t = 1.235) are not relatively significant at P>0.05. It was concluded that class size and teacher factors influence students' academic achievement in Economics in Public Secondary Schools in Southwest, Nigeria. It was recommended amongst others that teachers should be trained continuously and the recommended class size should be strictly adhered to.

Keywords: Class Size. Teacher Factors, Students' Academic Achievement, Economics
Word Count: 295